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ABSTRACT

The basis for this report is an assessment by teachers, administrators, students and parents on how well Oregon's fourth graders are reading. The project was specifically designed to reflect concerns and goals which Oregon citizens regarded as relevant to their children's education. The first section of this report discusses the background of the assessment including such topics as setting goals, assessing student performance, the value of assessment, and how different audiences can use assessment results. The second section examines what to measure, how to measure, selecting students for the assessment, how and when assessment occurred, analyzing the data, judging the data, using the data, and the future of the assessment. Section three examines the domain levels, setting criterion levels, how criterion levels of performance were set, performance by domain area, and performance by student and district characteristics. The fourth section takes recommendations to the Oregon Legislature, to the State Board of Education and Oregon Department of Education, to the State Textbook Commission and local textbook committees, to teachers and district personnel, and to parents and citizens. (TS)

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IMPACT of Oregon Education: an Assessment of Reading 1975

2

OREGON STATEWIDE ASSESSMENT PROGRAM

GENERAL REPORT

Verne A. Duncan
State Superintendent of Public Instruction

Mary Hall
Associate Superintendent
Special Programs Assistance

James Impara, Director
Oregon Statewide Assessment

December, 1975

Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

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FOREWORD

In 1973 the Oregon Department of Education began implementing the Oregon Statewide Assessment Program to provide information upon which important educational decisions would be based. In April 1975 an assessment of reading skills was administered. Information from this and future assessments will ultimately lead to the improvement of learning opportunities for Oregon's students.

Over the past several years teachers, administrators, students and parents have become increasingly aware of the need to improve student performance in reading. Their reactions to the 1975 assessment results, presented in the form of conclusions and recommendations, form the basis for this report on how well Oregon's fourth graders are reading.

Objectives important for Oregon students have been measured by this assessment. The project is specifically designed to reflect concerns and goals which Oregon citizens regard as relevant to their children's education.

Developing an assessment program which successfully serves the needs of diverse audiences interested in improving Oregon education is a tremendous endeavor. The Department is pleased to present this year's assessment results for consideration by all concerned citizens.

Verne A. Duncan
State Superintendent of
Public Instruction

ACKNOWLEDGMENTS

The success of the 1975 Oregon Statewide Assessment Program depended upon the cooperation and contributions of hundreds of people. Educators, citizens and students from every area of the state participated in implementing this full-scale statewide assessment of student performance in reading. This report and other assessment products could not have been developed without their efforts.

Special note must be made of the following groups:

- The Statewide Assessment Advisory Committee members who successfully brought their diverse experiences to bear on numerous difficult decisions affecting policies and procedures.
- The intermediate education district (IED) assessment coordinators, who strengthened communication between local school and state personnel, and provided advice and assistance on many technical and logistical problems.
- The Intergroup Human Relations Commission members who were especially helpful in making recommendations leading to adequate protection of the rights of students being tested.
- The many teachers, principals, superintendents, other local district administrators, reading specialists, and citizens who contributed their time and effort in order to determine the assessment content, administer assessment tests, and interpret assessment results.
- Program directors and staff of the Oregon Department of Education, who assisted in reviewing procedures and materials, and advising the statewide assessment staff on solving many of the problems which confront any new program.

We regret that space does not permit personal recognition of each contributor. But to all who gave of their experience and time, thank you.

TABLE OF CONTENTS

Section	*Page*
1. BACKGROUND	8
2. HISTORY, PROCEDURES AND FUTURE PLANS	11
3. RESULTS AND INTERPRETIVE COMMENTS	14
4. RECOMMENDATIONS	52
5. APPENDICES	54

Can Oregon Fourth Grade Students Read?

According to the April 1975 statewide reading assessment, student performance was satisfactory or better on 18 out of 25 reading objectives Oregonians had identified as important. Students performed better in the areas of word attack and vocabulary skills than in the areas of comprehension and application skills.

Which groups performed above the state average?

- Students who had not failed a grade or been held back
- Students from the Eastern Region of the state
- Girls
- Students less than 10 years old

Which groups performed below the state average?

- Participants in a compensatory education program for the disadvantaged (Title I of the Elementary and Secondary Education Act—ESEA)
- Students diagnosed as needing corrective/remedial work
- Students who had failed a grade or been held back
- Students from the Metropolitan Region of the state
- Those from a district of 7,500 or more students
- Members of minority groups

Some other important findings from this year's assessment:

- Most students who needed assistance in reading were receiving that help—through Title I or other special assistance programs, additional reading instruction time or through the assistance of aides and paraprofessionals.
- However, about 7 percent (approximately 2,400) of those Oregon fourth graders diagnosed by teachers or reading specialists as needing corrective/remedial work in reading were not receiving it.
- The majority of students diagnosed as needing corrective or remedial reading *were* being diagnosed by classroom teachers, although students with the most severe reading problems were usually diagnosed by specialists. The performance data tended to indicate that teachers and specialists had accurately identified students who had a reading problem.
- In most cases, students from districts of 3,000 to 7,499 students had the highest performance.
- For some bilingual students, speaking a second language appeared to be related to having reading problems; performance of such students was well below the state average.
- The sex of the fourth grade reading teacher had no apparent effect on reading performance of fourth graders.
- Students with the lowest performance were receiving the greatest amount of direct reading instruction per day, and were also the most likely to be participating in remedial or other special reading programs.
- About 54 percent of Oregon's fourth graders received one-half hour to one hour of direct reading instruction per day; about 39 percent received one to two hours.

What can be done to help those students for whom reading performance was low? Following are some recommendations offered by a panel of Oregon educators and other citizens.

To the Oregon legislature . . .

- Ensure the funding of special programs designed to serve the approximately 7 percent of Oregon students who need but are not receiving corrective/remedial assistance.

To the State Board of Education and the Oregon Department of Education . . .

- Examine assessment results carefully when determining which new reading programs will receive funding. In particular, attend to the needs indicated by lower performance of minority and Title I students, and by those diagnosed as needing special assistance in reading. Also attend to the lower performance of students throughout the state in the areas of comprehension and application skills, and focus effort on programs which offer students the most direct assistance in the identified areas of weak performance.
- Use assessment results to assist colleges and universities in designing teacher preparation programs, and to assist the Teacher Standards and Practices Commission in setting professional standards for teacher certification.
- Use assessment results in providing technical assistance (e.g., on interpretation of test results) and in designing in-service training (e.g., through the Right to Read program) for educators and local districts.

To the State Textbook Commission and local committees . . .

- Continue to use the results of statewide assessment in evaluating textbooks.

To teachers and district personnel . . .

- Place more emphasis on teaching comprehension and application skills—the areas of lower student performance.
- Be sure textbooks and reading materials emphasize those objectives in which student performance was weak.
- See that reading materials and exercises are of interest to male, non-white and disadvantaged students—and to others whose performance on the 1975 assessment was low.
- Provide a wide variety of resources and methods for teaching reading; keep programs flexible.

To parents and citizens . . .

- Emphasize the importance of reading by openly expressing a positive attitude toward the advantages and pleasures to be gained from reading well.

- Involve children in a variety of reading activities designed to increase comprehension and application skills.

These recommendations represent highlights of the ideas which emerged from the 1975 reading assessment. The following pages offer a more complete look at the recommendations, the results on which those recommendations were based, and the background and history of Oregon's assessment program.

Background

- Step 1: Setting Goals
- Step 2: Assessing Student Performance
- The Value of Assessment
- How Different Audiences Can Use Assessment Results

  The Oregon Legislature
  The State Board of Education
  The Oregon Department of Education
  Intermediate Education Districts
  Local Districts and Schools
  Parents and Citizens
  College and University Personnel
  The State Textbook Commission and Local Committees

BACKGROUND

Since the beginning of formal education, teachers and other educators, students, parents, and taxpayers have asked, "Is there a better way?"

As educational costs rise, the public is becoming increasingly concerned whether education is providing a reasonable return for the time, money and effort invested. With quality of education an increasing focus of inquiry, Oregon educators are becoming continuously more conscious of the need for comprehensive, thorough planning and evaluation, and are examining existing programs and processes more closely.

Education is a dynamic system that requires continual monitoring and evaluation to remain effective. In 1972, the Oregon Department of Education began to develop a monitoring system to provide information on which critical educational decisions leading to desired improvements could be based.

Step 1: Setting Goals

The first step in monitoring education involves setting educational goals which can help answer the following questions:

- In what goal areas must students develop competencies in order to cope with modern society?
- What responsibilities do public schools have to help individuals develop competencies in these goal areas?

On February 8, 1974, the State Board of Education established six goals for public schools. These goals, conceived and endorsed by Oregon citizens, have been established to provide every elementary and secondary school student the opportunity to develop the general knowledge, skills and attitudes needed to function as an adult within six life roles:

- Learner
- Individual
- Consumer
- Producer
- Citizen
- Family Member

Step 2: Assessing Student Performance

The second step in monitoring education calls for measuring student performance in these educational goal areas. This is accomplished in part through statewide assessment, which for purposes of the Oregon Statewide Assessment Program is defined as *the systematic gathering, analyzing and reporting of information about Oregon students' knowledge and skills at specific points in time.*

Statewide assessment began in Oregon in 1973, when the legislature authorized the use of state and federal funds to support a statewide program. In 1974 a pilot assessment of reading was conducted, and 1975 marked the first full-scale, statewide assessment conducted in Oregon.

The Value of Assessment

Assessment is an integral part of educational planning and evaluation. Assessment results help identify and establish priorities among primary educational needs. Once needs are identified, alternative plans for meeting these needs can be considered, plans selected and implemented, and their success evaluated. Finally, as the monitoring system completes its full cycle, goals and plans can be retained or, if necessary, changed.

It is important to remember that the best intentions cannot be acted upon until there are specific indications of what is needed; that information is what assessment helps provide. Statewide assessment results indicate the extent to which Oregon students have attained desired goals. Discrepancies between present and desired performance help determine State Board of Education priority needs, and establish a focus for Oregon Department of Education actions.

For 1974-77, Oregon State Board of Education priorities for elementary and secondary education are as follows:

1974-77 INSTRUCTION-RELATED PRIORITIES

- Improve Early Childhood and Primary Education
- Increase Opportunities for the Development of Reading Skills
- Continue to Expand Career Education
- Expand Opportunities for Learners with Unique Educational Needs
- Emphasize the Fourth "R": Responsibility
- Improve Health Education

1974-77 MANAGEMENT-RELATED PRIORITIES

- Close the Communication Gap
- Assess Systematically the Progress of Education in Oregon
- Continue to Improve the Financing of Oregon Education
- Improve the Instructional and Management Practices of Oregon Schools

How Different Audiences Can Use Assessment Results

Both the State Board and the Oregon legislature need assessment data to formulate state educational policies. Their questions and concerns were primary considerations in determining what data to collect. However, the information gathered through statewide assessment will be helpful to a wide range of audiences.

The Oregon legislature should find that assessment results assist them in—

- Allocating state resources to achieve special program outcomes, such as providing needed assistance to students with special reading problems.
- Determining what impact new legislation or allocated resources have had upon student performance.

The Oregon State Board of Education should find the assessment results useful in—

- Determining the status and progress of students in relation to the State Goals for Elementary and Secondary Schools.
- Developing state priorities for public education.
- Reporting and making recommendations to the legislature.
- Aiding the Teacher Standards and Practices Commission in determining standards for teacher certification.
- Allocating the Department's resources.

The Oregon Department of Education should find the assessment program helpful in—

- Setting priorities for funding special projects.
- Providing data to aid in evaluating Department programs.
- Providing technical assistance to schools and determining areas of emphasis for teachers' preservice and in-service programs.
- Providing a model for district-level program evaluations.

The intermediate education districts, local districts, and *schools* should find the assessment useful in—

- Providing a model for evaluating local programs' effectiveness in preparing students to fulfill the local district goals.
- Specifying specific skill areas for teacher in-service training.
- Identifying important instructional objectives.
- Identifying specific objectives for which additional instruction is needed.
- Selecting textbooks and curriculum materials to teach skills in which the assessment shows student performance to be weak.

Parents and citizens should find the assessment results assist them in—

- Determining how well students are performing in critical skill areas, and shaping local or state programs needed to improve performance or maintain strengths.

College and university personnel should find assessment results assist them in—

- Determining areas of strength or weakness in student performance which might have implications for future preparation of teachers and curriculum specialists.
- Identifying ways in which further research can show how different curriculum materials and teaching strategies affect learning.

The State Textbook Commission and local committees should find assessment results assist them in—

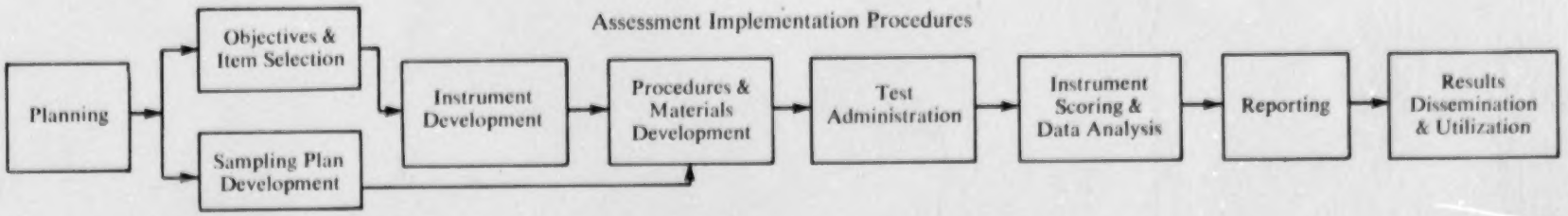
- Their regular review and recommendation of textbooks.

History, Procedures and Future Plans

- What to Measure
- How to Measure
- Selecting Students for the Assessment
- How and When Assessment Occurred
- Analyzing the Data
- Judging the Data
- Using the Data
- What About the Future

HISTORY, PROCEDURES AND FUTURE PLANS

In September 1973, a multi-component plan was developed specifically for Oregon's Statewide Assessment Program:



To be sure that the program reflected the educational climate in Oregon, assessment staff sought advice from educators and other concerned citizens throughout planning and implementation. Some of the major decisions needed in the process are described in this section.

What to Measure

One of the first tasks was to define what the assessment should measure. To determine how children in every grade were performing in every subject would have been all but impossible in terms of time and expense. Instead, the state superintendent of public instruction decided that assessment should begin with one subject recognized by the Board as an area of priority need: reading.

Reading is generally recognized as one of the most important basic skills necessary for coping with life in an increasingly complex society. It is prominently listed among the learner skills that comprise Oregon's educational goals and instructional priorities.

How to Measure

Though many nationally standardized reading tests were available, none were totally appropriate for measuring what Oregonians felt was important for their children to know about reading. Therefore, it was decided that a new test, unique to Oregon, would be assembled. This test was to be referenced to the specific objectives Oregon citizens and educators had identified as important. Students' scores would be compared to a level of satisfactory performance established by Oregonians and judged accordingly—rather than compared to a national norm.

Over 550 Oregonians were involved in selecting the 25 reading objectives measured by this assessment. Once objectives had been decided upon, test items were selected to measure performance relating to those objectives. The items came from the collections of the Instructional Objectives Exchange and the National Assessment of Educational Progress. From this pool, members of the Department and the Oregon Right to Read Advisory Committee adapted 96 items for use in the 1974 pilot test.

Following the pilot test, the items were subjected to further review, and 94 items were retained or modified for use in the 1975 assessment. However, the same 25 objectives formed the basis for both the pilot test and the 1975 assessment.

Selecting Students for the Assessment

It was also necessary to decide which children to test and how many to test. Though reading is emphasized throughout the primary grades, children have usually developed a sizeable repertoire of reading skills by grade four, and have begun to use those skills consistently and effectively to enhance learning. For this reason, fourth graders were selected as subjects for the reading assessment.

It was not necessary to test all fourth graders in the state in order to obtain accurate information. Through a process known as sampling, a relatively small number of students could be tested, and the results could be reported as if all Oregon fourth graders had been tested. This procedure allowed assessment staff to collect very accurate information efficiently and economically.

The sample for the 1975 assessment was originally to include about 8,400 students. However, those absent on the scheduled day of testing and those with certain exceptionalities—blind, deaf, trainable mentally retarded, and some emotionally disturbed students—were not included in the assessment. Other than absentees and these exceptional students, however, all fourth graders in participating sample schools were tested.

The 207 schools selected to participate in the 1975 reading assessment were chosen on the basis of three school district characteristics: geographic location, per pupil expenditure, and district size. This ensured equitable representation of the 811 schools in Oregon which provided instruction to fourth graders. Of those 207 schools, one chose to be excluded from the sample, so that 206 schools—and 8,111 students—actually participated in the assessment.

How and When Assessment Occurred

The first Wednesday in April was designated as the day for statewide assessment. However, some districts postponed testing for one week because the designated date immediately followed their spring vacation.

Fourth grade teachers in most sample schools gave the test to their own students, using test materials assembled and distributed by Educational Testing Service

(ETS). Students were asked to specify their age and sex and to provide other biographical information. Teachers were asked to provide descriptive information such as whether the student had ever been held back a grade, how much reading instruction per day the student was receiving, and whether the student was participating in a special reading program. Teachers were asked to complete all information on students who were absent on the testing day. All tests were returned to ETS for scoring. Later, data from the assessment were analyzed by staff of the Research Triangle Institute (RTI) of North Carolina.

Analyzing the Data

Because the various audiences for Oregon Statewide Assessment reports have different informational needs, assessment data were subjected to several kinds of statistical analyses. The analyses addressed two basic questions:

- What were the identified characteristics of fourth grade students in the sample (and by extrapolation, in the state)?
- How did students perform on the test?

Numerous analyses were conducted; the major findings from those analyses are presented in subsequent sections.

Judging the Data

Oregon's assessment program is unusual in that as much time and effort are devoted to generating recommendations for corrective action as to collecting assessment data. A common weakness of many other assessment programs has been a lack of attention to appropriate dissemination or utilization of data.

In mid-September 1975, an interpretive panel comprising teachers, reading specialists, principals, superintendents, and parents from throughout the state met at the Northwest Regional Educaional Laboratory (NWREL) in Portland for the specific purpose of reviewing the results of the full-scale reading assessment. Department personnel, NWREL assessment specialists, and RTI representatives (whose staff had conducted the data analysis) also participated in that review. The combined experience and knowledge of the 40 interpretive panel members helped ensure that their comments and recommendations would be particularly relevant for Oregon students.

Using the Data

Assessment data indicate areas of strength and weakness in student performance, thereby suggesting how educational priorities should be set to provide the best possible learning opportunities for students. Assessment data provide a guideline for establishing or modifying special programs, and provide a basis for new legislative emphasis. But assessment results can lead to educational improvements only if made available to key decision makers. To ensure this availability, assessment staff have prepared a series of reports directed to specific audiences. A complete overview of the type of information contained in each report is presented on the inside back cover of this document.

Copies of the reports will be disseminated to principals and superintendents, reading specialists, school board members and district administrators. In addition, there will be a special release of assessment results to the media.

Department staff will help ensure proper interpretation and use of assessment results by scheduling conferences and presentations for specific audiences. Persons desiring detailed information about the assessment can arrange a conference or presentation by contacting the Department.

What About the Future

As a result of the 1974 pilot test and the 1975 reading assessment, assessment procedures have been refined, and assessment can profitably be expanded to other goal areas. An assessment of Oregon fourth grade students' performance in mathematics is scheduled for February 1976. Reports of that assessment will be published in the fall of 1976. Department assessment staff are planning assessment of other goal areas for future years and are developing some pilot materials for these future assessments.

3

Results and Interpretive Comments

- Using Results
- The Domain Areas
- Setting Criterion Levels: A Task for the Interpretive Panel
- How Criterion Levels of Performance Were Set
- Performance by Domain Area
- Performance by Student and District Characteristics
- Summary

RESULTS AND INTERPRETIVE COMMENTS

Using Results

It is important to keep in mind that the reading assessment results presented in this report are intended to apply only to the Oregon fourth grade population *as a whole*. It would *not* be appropriate to use these results in judging the performance of individual students, teachers, or districts—or in making comparisons among them. Data on which such judgments and comparisons could be based must be derived through local assessment, which is now required by the Oregon Minimum Standards for Elementary and Secondary Schools.

The assessment test administered in April 1975 to 8,111 students throughout Oregon represented an initial step toward identifying existing strengths and weaknesses in Oregon fourth grade students' reading performance. By addressing identified weaknesses and working to maintain strengths, Oregon educators and other decision makers can make this assessment the basis for effecting educational improvements.

The Domain Areas

For purposes of this assessment, the 25 objectives selected by Oregon educators and citizens were grouped into four domain areas: word attack skills, vocabulary skills, comprehension skills and application skills. In a subsequent section, these domain areas are defined, the objectives through which each was measured are listed, and the results of student performance are presented.

Setting Criterion Levels: A Task for the Interpretive Panel

The use of an objective-referenced test for the 1975 assessment was in keeping with a policy recommendation made by the Statewide Assessment Advisory Committee and approved by the Board and the state superintendent. Interpreting objective-referenced tests requires setting certain criterion levels of satisfactory performance against which actual student performance can be judged. These criterion levels should reflect the quality of student performance desired by Oregon citizens and educators. Therefore, individuals who were highly qualified, based on their knowledge and experience, were brought together to set criterion levels of performance and to compare actual student performance with those criterion levels. This group, known as the 1975 interpretive panel, also offered interpretive comments and recommendations based upon that comparison.

The interpretive panel met for five days in September 1975 at the Northwest Regional Educational Laboratory in Portland. Their first task was to establish satisfactory levels of performance to which actual student performance on the 1975 reading assessment objectives could be compared.

How Criterion Levels of Performance Were Set

Before seeing actual assessment results, panel members examined the individual test items associated with each objective. Based on their personal knowledge or professional experience, they established two levels of performance for each item: "desired" and "acceptable." Desired performance represented the percentage of students that interpretive panel members would like to see complete an item correctly—a goal toward which to strive. Acceptable performance represented the minimum percentage of students that panelists felt must complete an item correctly in order for general performance on that item to be considered satisfactory.[1] Performance above the desired level was considered *indicative of a strength*. Performance below the acceptable level was considered *indicative of a weakness*. The range from acceptable to desired performance was defined as *satisfactory performance*.

For example, panel members on the average might determine that 75 percent would be a desired level of performance on a given item, and that 60 percent would be an acceptable level of performance. In this case, if more than 75 percent of the students answered the item correctly, their performance would be considered indicative of a strength. If less than 60 percent of the students answered the item correctly, their performance would be considered indicative of a weakness. And if somewhere between 60 and 75 percent of the students answered the item correctly, their performance would be considered satisfactory.

Criterion levels of performance for each objective were computed by averaging panel members' responses for each test item relating to that objective. Each of the 25 objectives incorporated anywhere from two to six items.

Only after criterion levels were set for all 25 objectives did interpretive panel members review the actual results of the 1975 assessment. Because panel members' interpretations of student performance were based on comparison of actual student performance with the criterion levels of acceptable and desired performance which they themselves had set, it is quite possible that others will have different or additional opinions regarding student performance. Readers are therefore encouraged to examine the results for themselves, and to compare their ideas and interpretations with those offered in this report.

Performance by Domain Area

Word Attack Skills: Domain I. Word attack skills aid a reader in understanding unknown words. They include associating sounds with letters, recognizing frequently used words, and dividing words into syllables. Phonics skills would be included in this domain.

[1] The actual definitions given to interpretive panel members at the time of their meeting were as follows: "Desired performance represents the percentage of students that should be able to complete an item correctly. Acceptable performance represents the percentage of students that must complete an item correctly provided instruction is adequate; otherwise, some specific action must be taken to improve learning." These definitions were established by the Oregon Department of Education specifically for use in this review and interpretation of assessment results.

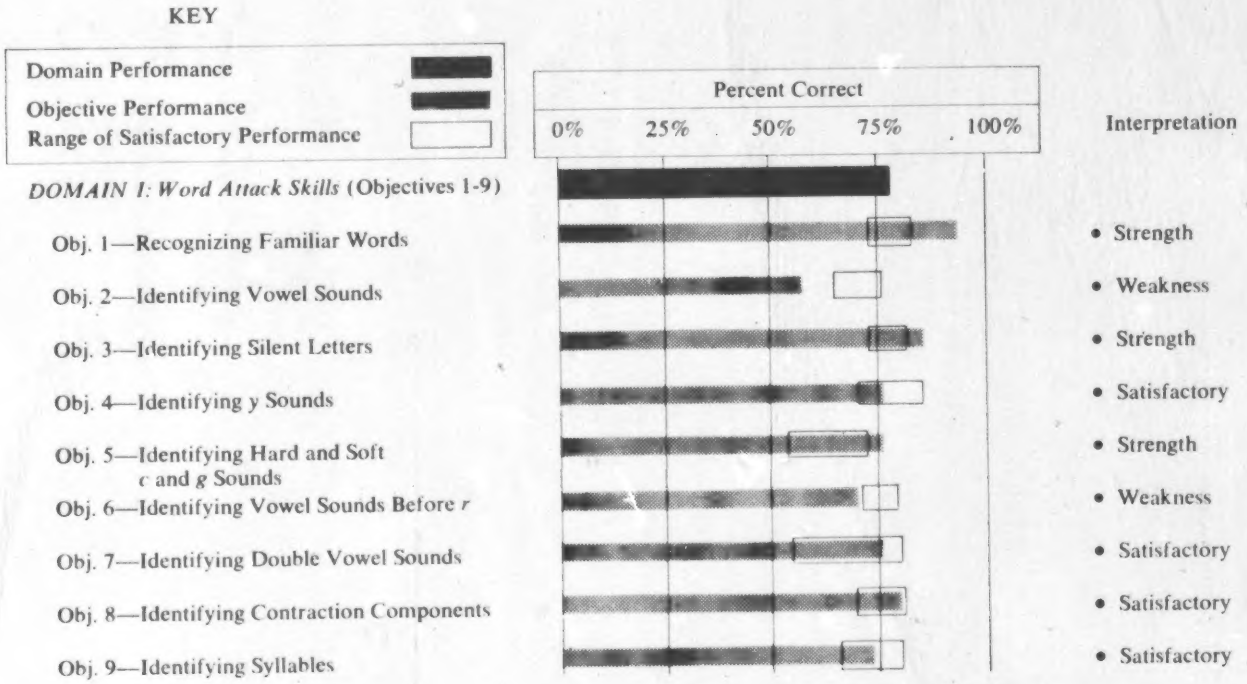
A specific example of a word attack skill is a student's determining what sound the letter *y* would have in a given word. A test item related to this skill required the student to determine which of the following sounds the letter *y* would have in the word *bicycle:* (1) short *i*, (2) long *i*, (3) long *e*, (4) consonant, (5) I don't know.

Table 1 identifies each of the nine objectives on which performance was measured within this domain. The bar graph indicates actual student performance on the domain (wide shaded bar) and on each objective (narrow shaded bar), and the range of satisfactory performance (box), set by the 1975 interpretive panel.

In summary, interpretive panel members regarded student performance as generally satisfactory on this domain, with three areas of strength (above the desired level), four areas of satisfactory performance, and only two indicated areas of weakness (below the acceptable level). Though they were generally pleased with student performance on this domain, panelists were concerned with the weaknesses indicated by low performance on Objectives 2 and 6 (relating to vowel sounds). Most felt strongly that since phonics is formally taught in the first three grades, fourth graders should perform well on all objectives relating to phonics skills.

TABLE 1

State Performance on Word Attack Skills



Vocabulary Skills: Domain II. These skills help the reader extract meaning from words. Vocabulary skills include using the context of a passage to understand an unknown word or to identify the intended meaning of a word that has more than one possible meaning. Such skills assist a student in comprehending reading passages.

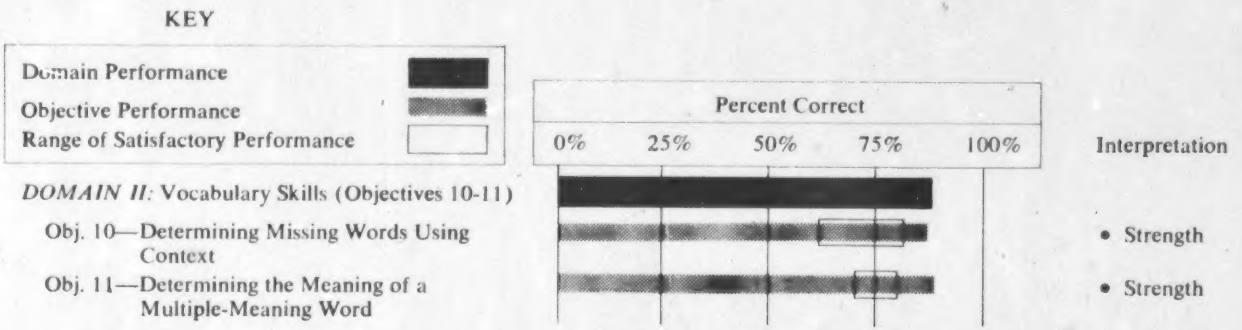
A specific example of a vocabulary skill is a student's identifying the intended meaning of a multiple-meaning word. A test item related to this skill required the student to determine the meaning of the word "lean" as used in the sentence: "The tree would *lean* whenever the wind blew." Possible choices given the student included: (1) slant or bend, (2) depend on for help, (3) thin, without fat, (4) I don't know.

Table 2 presents the two objectives used to measure student performance on vocabulary skills, the range of satisfactory performance determined for each objective, and the results of actual student performance.

In summary, student performance was above the desired level on both objectives —indicating a strength in each case. Panel members were pleased by the high level of performance demonstrated in this domain, particularly since they felt that the objectives represented practical skills which students must frequently use in reading for understanding.

TABLE 2

State Performance on Vocabulary Skills



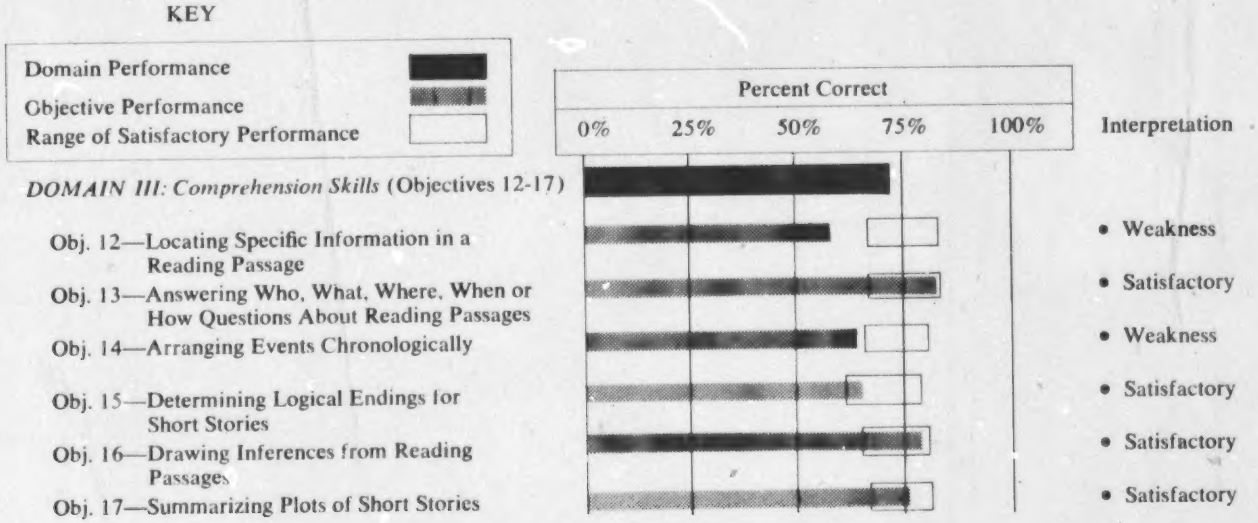
Comprehension Skills: Domain III. Reading comprehension is a global term used to describe a composite of many separate skills, all of which contribute to a student's ability to acquire meaning from ideas conveyed by the printed word. Specific skills within this domain include reading for detail, anticipating outcomes of passages, and making inferences from information given. A specific example of a comprehension skill is a student's reading a brief one-paragraph passage and then answering who-what-where-when-or-how questions about that passage.

Table 3 presents the six objectives used to measure student performance on comprehension skills, the range of satisfactory performance for each objective, and the results of actual student performance.

Panel members regarded performance on this domain as slightly below satisfactory overall, with two indicated areas of weakness—answering questions about reading passages and arranging events chronologically—and no indicated areas of strength. Because of the importance they placed upon comprehension skills, they were particularly concerned that steps be taken to improve performance in this area.

TABLE 3

State Performance on Comprehension Skills



Application Skills: Domain IV. Application skills use comprehension, but additionally require gathering information, reasoning, using reference materials, and applying knowledge, as well as understanding the materials used.

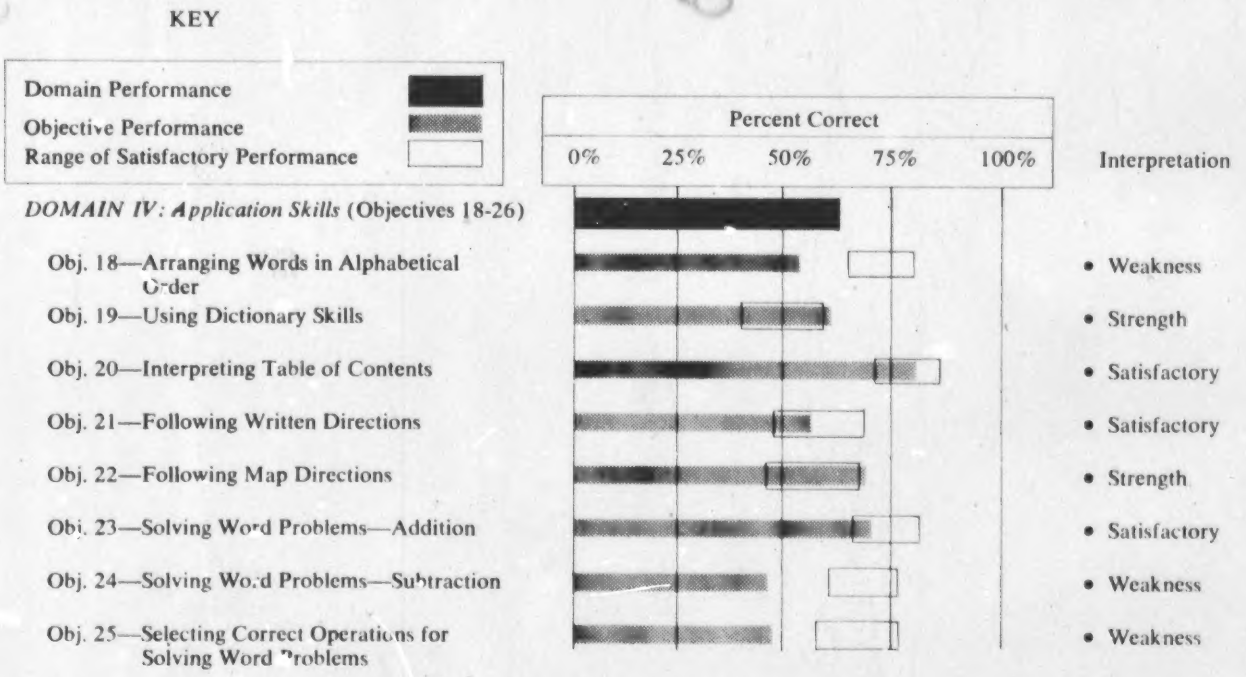
A specific example of a skill in this domain is a student's alphabetizing a list of words. For example, one test item required students to alphabetize a short list of words all beginning with the letter *a*.

Table 4 presents the eight objectives used to measure student performance on application skills, the range of satisfactory performance for each objective, and the results of actual student performance.

In summary, interpretive panel members considered performance on this domain less than satisfactory, with three indicated areas of weakness, three areas of satisfactory performance, and only two indicated areas of strength. At the same time, they felt that the objectives measured within this domain were more difficult than in other domains. (This is reflected in the fact that panel members tended to set levels of acceptable performance lower for this domain than for other domains.) In general, panel members attributed areas of low performance to the fact that application skills receive less emphasis through grade four; they were concerned nonetheless that every effort be made to improve performance in this area.

TABLE 4

State Performance on Application Skills



In Conclusion

Panel members felt that some weaknesses in performance might reflect misplaced instructional priorities, because students could perform well on simple exercises, but often could not successfully apply a combination of skills to comprehend or interpret a reading passage. For example, performance varied greatly within the application skills domain. Student performance was above the desired level, indicating a strength, on objective 19: Using Dictionary Skills. But it was well below the acceptable level, indicating a weakness, on the more complex objective 25: Selecting Correct Operations for Solving Word Problems.

Students generally performed better in the domains of word attack and vocabulary than in comprehension and application skills. Since comprehension and application skills are critical to success in future schooling, panel members felt that specific action should be taken throughout the state to correct these deficiencies. In addition, it was recognized that while acquisition of basic reading skills is important to success in school, of even more significance is the question of whether students can use these skills to successfully cope with day-to-day living—whether reading for pleasure or to acquire knowledge.

Performance by Student and District Characteristics

Introduction. Many characteristics relate to student achievement; these characteristics may be physical or mental, economic or sociological, innate or environmental. Information on student performance can be analyzed and interpreted according to these student and district characteristics. For the 1975 assessment these characteristics were—

- Region
- District Size
- District Per Pupil Expenditure
- Need for Corrective/Remedial Work in Reading
- Severity of the Diagnosed Reading Problem
- Participation in a Corrective/Remedial Reading Program
- Participation in a Compensatory Education Program
- Speaking a Second Language
- Repeating a Grade
- Receiving Reading Assistance from Paraprofessionals or Aides
- Amount of Direct Reading Instruction Per Day
- Student's Race/Ethnic Group
- Student's Sex
- Student's Age

In addition, a number of these characteristics were combined. That is, in some cases, students were classified according to two characteristics, rather than just one, to determine whether the results would be different from what could be expected in looking at either characteristic individually. Examples of such combinations include (1) age of the student combined with whether the student had been held back or had failed a grade, and (2) whether the student had been diagnosed as needing corrective/remedial assistance combined with whether the student was receiving corrective/remedial assistance.

Following are the results of student performance according to each characteristic listed above, along with interpretive comments relating to that performance.

Even though direct comparisons of student performance between 1974 and 1975 are not possible on an objective-by-objective basis, certain general comparisons can be made. Appropriate comparisons are highlighted in the SUMMARY section of this report.

Readers should be cautioned about making additional comparisons between this year's results and the 1974 pilot test results. The method of establishing satisfactory student performance was changed in 1975, and a number of test items were replaced or modified between 1974 and 1975. This does not suggest that one set of interpretations is more valid than the other, or that identified general similarities in student performance from one year to the next are not accurate.

When reviewing results of student performance by characteristic, it is very important to remember that a perceived relationship between student performance and a given characteristic does not imply cause and effect. For example, if students in one size of district score lower than those in another, this in no way implies that living in a district of that size *causes* student performance to be low. Discrepancies may be attributed to another characteristic or to conditions outside the scope of the current assessment. Achievement in reading is influenced by many factors and cannot be adequately explained in terms of a single cause-effect relationship.

Region. Oregon was divided into three geographical areas for this assessment: Eastern, Western, and Metropolitan. The Eastern Region included the 18 counties east of the Cascade Mountains. The Metropolitan Region included Clackamas, Multnomah, and Washington counties; and the Western Region included the 15 counties west of the Cascades, other than those in the Metropolitan Region. (Figure 1 shows how the regions were defined.) Reporting by this characteristic made possible comparisons of student performance among different areas within the state.

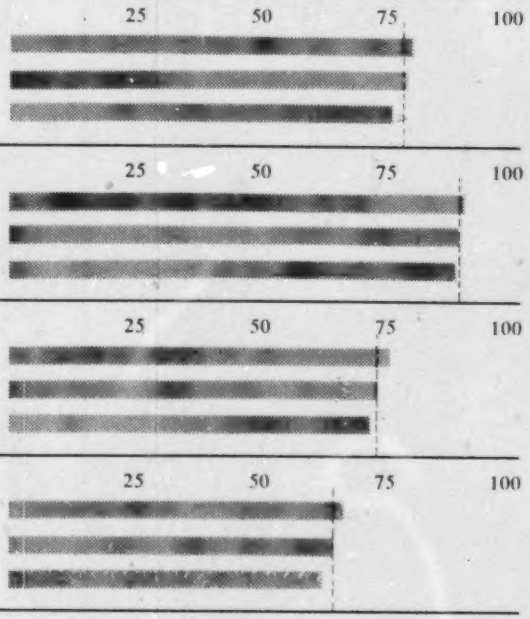
Fig. 1. Oregon School Counties in Assessment Regions

Region	Counties
Eastern:	Baker
	Crook
	Deschutes
	Gilliam
	Grant
	Harney
	Hood River
	Jefferson
	Klamath Falls
	Lake
	Malheur
	Morrow
	Sherman
	Umatilla
	Union
	Wallowa
	Wasco
	Wheeler
Western:	Benton
	Clatsop
	Columbia
	Coos
	Curry
	Douglas
	Jackson
	Josephine
	Lane
	Lincoln
	Linn
	Marion
	Polk
	Tillamook
	Yamhill
Metropolitan:	Clackamas
	Multnomah
	Washington

TABLE 5

PERFORMANCE FOR DOMAINS BY REGION

DOMAIN AREA	REGION	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	Eastern	2,000	79.9*
	Western	3,203	78.7*
	Metropolitan	2,908	75.8*
Vocabulary Skills	OREGON	8,111	88.8
	Eastern	2,000	90.1*
	Western	3,203	88.8
	Metropolitan	2,908	88.1
Comprehension Skills	OREGON	8,111	73.3
	Eastern	2,000	75.6*
	Western	3,203	73.6
	Metropolitan	2,908	72.0*
Application Skills	OREGON	8,111	64.5
	Eastern	2,000	66.9*
	Western	3,203	64.7
	Metropolitan	2,908	63.2*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and region averages can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and region average scores for the domain occurs not only in the sample, but in the state fourth grade population as a whole.

Figure 2 shows the estimated percent of Oregon fourth graders contained within each of the three regions. The Western Region contained the greatest number of fourth grade students, and the Eastern Region contained the fewest.

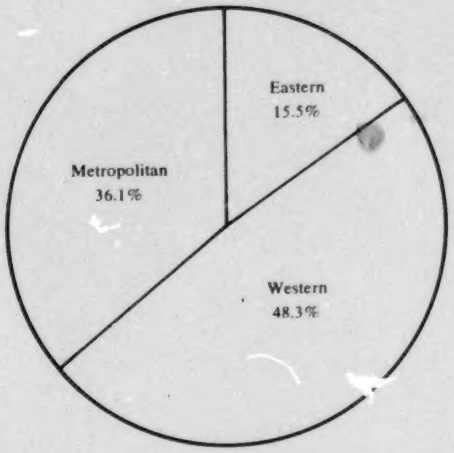


Fig. 2.: Estimated percent of fourth graders in region categories.[2]

Table 5 shows the sample size and the average percentage of items in each domain answered correctly by students in each region. Specifically, it provides the following information:

- Column one gives the name of the performance domain.
- Column two identifies the region.
- Column three gives the number of students in the state sample and in each region.
- Column four gives the average percentage of test items answered correctly in each domain for students throughout the state and within each region.

In summary, the Eastern Region scored consistently higher than the state average for all domains. The Metropolitan Region scored slightly lower than the state average on the word attack, comprehension, and application domains.

[2] Figures given in pie graphs do not total exactly 100 percent, for two main reasons. First, figures are rounded to the nearest tenth. Second, teachers were not able, in all cases, to provide the requested information.

Interpretive panel members felt that great care must be exercised in interpreting these differences. They indicated that differences among regions could be attributed to special characteristics of students within each region. For example, many minority students, who generally scored lower on the assessment test, live within the Metropolitan Region, and this would have affected performance scores for the Metropolitan Region. Therefore, panel members offered no definitive interpretations regarding these regional differences, and did not feel that any definite conclusions could be drawn or recommendations made solely on the basis of regional differences.

It is important to recognize that differences in student performance are not always of great educational importance. As noted earlier, performance of Oregon students was determined by testing a scientifically selected sample of fourth graders instead of testing all fourth graders in the state. Then, a standard statistical procedure was used to determine whether performance differences occurring in the sample would likely occur if all students in the state had been tested. *Differences which would likely occur if all Oregon fourth graders had been tested were designated "statistically significant."*

The reader should not be misled by the connotations of the word "significant." A statistically significant difference is *not* automatically important in terms of Oregon education. Some statistically significant differences may actually be too small to be of educational importance.

For example, the performance of students from the Metropolitan Region was below the state average for every domain. However, the differences in student performance were statistically significant only for three domains: word attack skills, comprehension skills, and application skills. That is, only for these three domains is it likely that the average performance of *all* fourth grade students in the Metropolitan Region would be below the average performance of *all* fourth grade students within the state (i.e., if all fourth graders in Oregon were tested).

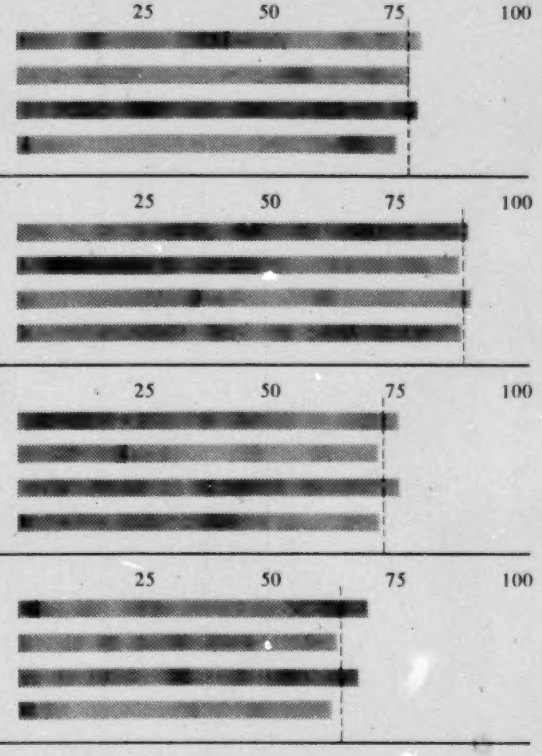
The differences in performance for these three domains, though statistically significant, were nevertheless quite small. Too small, in fact, to carry much educational importance.

In the following sections, only those differences which were found to be of statistical significance (likely to occur within the Oregon fourth grade population as a whole)—and particularly those differences great enough to merit special attention by educators—will be discussed. Statistically significant differences in each student performance table are asterisked.

TABLE 6

PERFORMANCE FOR DOMAINS BY DISTRICT SIZE

DOMAIN AREA	DISTRICT SIZE	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	1-99 students ADM†	168	81.5*
	100-2,999	3,452	77.9
	3,000-7,499	2,016	80.3*
	7,500 or more	2,475	76.0*
Vocabulary Skills	OREGON	8,111	88.8
	1-99 students ADM	168	90.4
	100-2,999	3,452	88.0
	3,000-7,499	2,016	90.9*
	7,500 or more	2,475	88.2
Comprehension Skills	OREGON	8,111	73.3
	1-99 students ADM	168	76.1
	100-2,999	3,452	72.5
	3,000-7,499	2,016	76.3*
	7,500 or more	2,475	72.3
Application Skills	OREGON	8,111	64.5
	1-99 students ADM	168	69.2*
	100-2,999	3,452	64.1
	3,000-7,499	2,016	67.4*
	7,500 or more	2,475	62.9*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and district size averages can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and district size average scores for the domain occurs not only in the sample, but in the state fourth grade population as a whole.

†Average Daily Membership

District Size. The second district characteristic to be considered was size. This characteristic, along with region and per pupil expenditure, was selected to ensure that schools included in the assessment would be representative of the different locations and types of school districts throughout Oregon. In addition, results reported according to this characteristic could indicate whether student performance differed among large, medium and small districts.

District size was defined as the total number of public school students (not just fourth graders) in the district. Within this category, four classifications were established:

- 1-99 students
- 100-2,999 students
- 3,000-7,499 students
- 7,500 or more students

Figure 3 shows the estimated percent of fourth graders among the four district size categories. Table 6 shows how students in the various categories performed on each of the domains.

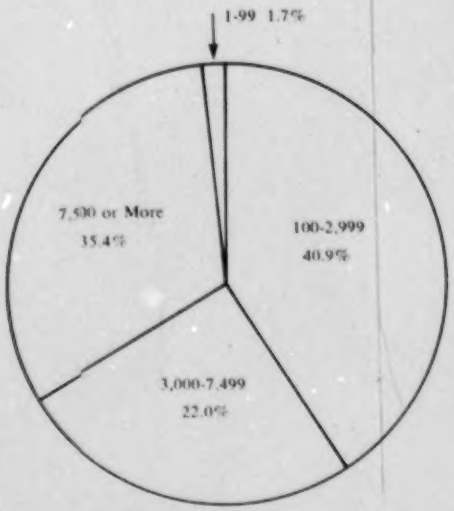


Fig. 3.: Estimated percent of fourth graders in district size categories.

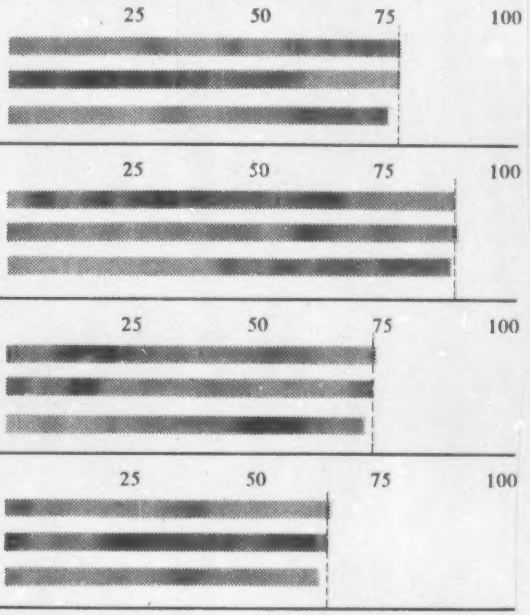
The results show a tendency for students in districts of 1-99 students and 3,000-7,499 students to score higher than those in districts of 100-2,999 and 7,500 or more students.

Scores for students in districts with 3,000-7,499 students were significantly higher than the state average for all domains. Students from small districts (1-99 students) scored significantly higher than the state average for word attack skills and application skills; performance of students in districts of 7,500 students or more was lower than the state average on these same two domains. Reviewers did not consider these district size differences large enough to warrant interpretive comments.

TABLE 7

PERFORMANCE FOR DOMAINS BY PER PUPIL EXPENDITURE

DOMAIN AREA	PER PUPIL EXPENDITURE	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	$699 or less	2,245	78.8
	$700-$899	3,923	78.5
	$900 or more	1,943	75.4*
Vocabulary Skills	OREGON	8,111	88.8
	$699 or less	2,245	88.8
	$700-$899	3,923	89.1
	$900 or more	1,943	88.0
Comprehension Skills	OREGON	8,111	73.3
	$699 or less	2,245	74.2
	$700-$899	3,923	73.5
	$900 or more	1,943	72.1
Application Skills	OREGON	8,111	64.5
	$699 or less	2,245	65.2
	$700-$899	3,923	64.8
	$900 or more	1,943	63.2



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and per pupil expenditure averages can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and per pupil expenditure average scores for the domain occurs not only in the sample, but in the state fourth grade population as a whole.

District Per Pupil Expenditure. The third district characteristic to be considered was per pupil expenditure. This characteristic was defined as the district's average per pupil expenditure (state and local funds only) for classroom instruction and school administration. Per pupil expenditure covers funds spent on all education activities and materials—not just those directly related to reading instruction. Within this category, three classifications were established:

- $699 or less per pupil
- $700-899 per pupil
- $900 or more per pupil

Figure 4 shows the estimated percent of fourth graders enrolled in districts of each per pupil expenditure classification.

Fig. 4.: Estimated percent of fourth graders in per pupil expenditure categories.

The average scores presented in Table 7 show that for one domain, students in districts which spend the most money per pupil scored somewhat lower than students in other districts. No other differences were found. The interpretive panel did not consider the one difference large enough to warrant extensive investigation or discussion of possible reasons for this observation.

Corrective/Remedial Work in Reading

Test administrators were asked three questions about diagnosis of each student's reading ability and participation in remedial programs.

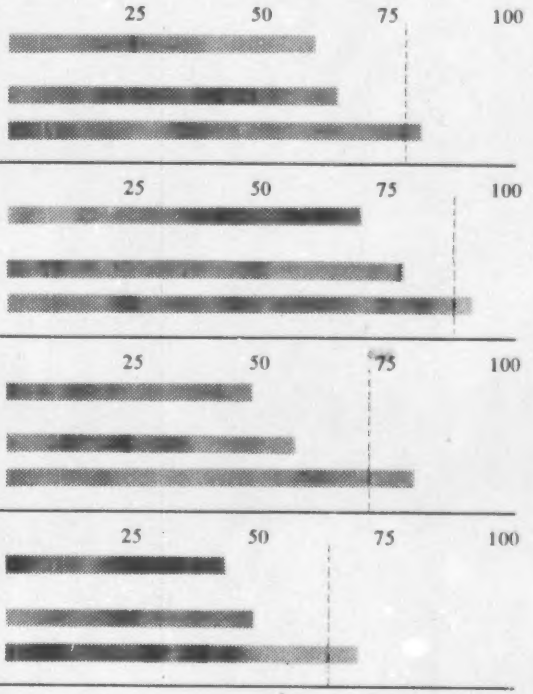
- Has this student been specifically diagnosed as needing corrective or remedial work in reading?
- If so, how severe is this student's reading problem?
- Is this student participating in a corrective or remedial reading program?

Needing/Receiving Corrective or Remedial Work in Reading. Beginning in first grade, a teacher continually observes a student's reading progress. At any point, the teacher may decide that a student needs special help to master reading skills. If qualified specialists are available, the teacher may ask a specialist to judge the nature and severity of a student's reading difficulty.

TABLE 8-a

PERFORMANCE FOR DOMAINS BY NEED FOR CORRECTIVE/REMEDIAL WORK IN READING

DOMAIN AREA	CORRECTIVE/REMEDIAL WORK NEEDED COMBINED WITH RECEIVED	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	Needs and Receives Corrective/ Remedial Work	1,371	60.4*
	Needs and Does Not Receive Work	589	65.5*
	Not Diagnosed and Not Received	5,957	83.0*
Vocabulary Skills	OREGON	8,111	88.8
	Needs and Receives Corrective/ Remedial Work	1,371	70.6*
	Needs and Does Not Receive Work	589	79.8*
	Not Diagnosed and Not Received	5,957	93.7*
Comprehension Skills	OREGON	8,111	73.3
	Needs and Receives Corrective/ Remedial Work	1,371	49.6*
	Needs and Does Not Receive Work	589	57.8*
	Not Diagnosed and Not Received	5,957	80.2*
Application Skills	OREGON	8,111	64.5
	Needs and Receives Corrective/ Remedial Work	1,371	43.4*
	Needs and Does Not Receive Work	589	50.0*
	Not Diagnosed and Not Received	5,957	70.7*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages according to need for corrective/remedial work can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain according to need for corrective/remedial work occurs not only in the sample, but in the state fourth grade population as a whole.

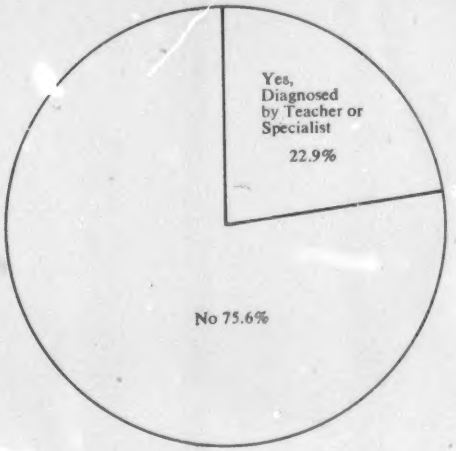


Fig. 5-a: Estimated percent of fourth graders diagnosed as needing corrective/remedial work.

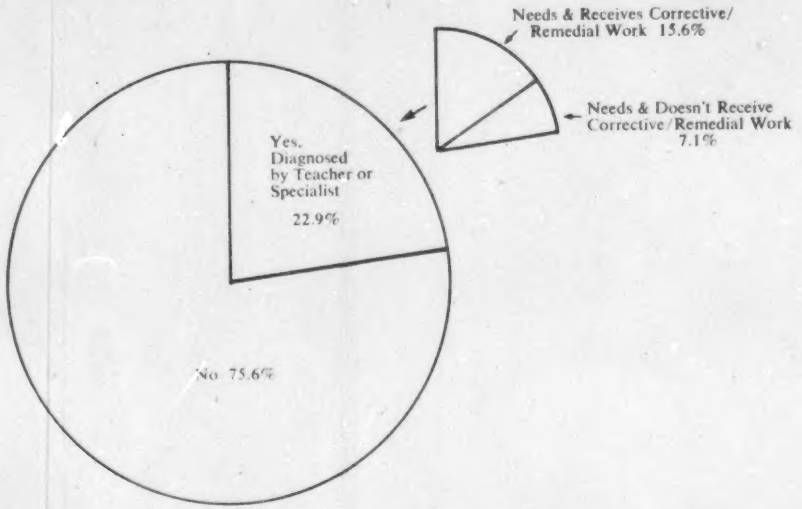


Fig. 5-b: Estimated percent of fourth graders who need and receive corrective/remedial work.

For the 1975 assessment, teachers were asked to indicate which students they, or a reading specialist, had diagnosed as needing corrective or remedial work in reading. This information revealed how many students throughout the state needed special help, and the characteristics of those students and the types of districts they resided in (i.e., whether students experiencing reading problems were more likely to be boys or girls; younger or older; from the Eastern, Western, or Metropolitan Region; from large, medium, or small districts).

As Figure 5-a indicates, approximately 23 percent of Oregon's fourth graders were diagnosed as needing corrective/remedial work in reading; 13 percent were diagnosed by teachers and 10 percent were diagnosed by specialists.

Figure 5-b shows that of the 23 percent of Oregon fourth graders diagnosed as needing corrective/remedial work, 7 percent were not receiving such help.

Table 8a shows the performance levels for three groups of students: (1) those needing and receiving remedial work, (2) those needing but not receiving remedial work, and (3) students not diagnosed as needing remedial work.[3]

Within all four domains, students diagnosed by teachers or specialists as needing corrective/remedial work scored lower than students not so diagnosed. Interpretive panel members felt confident that this difference in performance indicated that teachers' and specialists' diagnoses tended to be accurate; that is, students most in need of corrective/remedial assistance were being properly identified.

They also noted that those children diagnosed as needing corrective or remedial reading help were more likely to be older children, boys, minorities, and Title I participants. This information can be helpful in curriculum development research. Once groups requiring assistance are identified, it becomes easier to design curricula which will meet their needs. Such curricula can be preventative by reducing the likelihood that problems will develop, or prescriptive by reducing the severity of those problems which are already present.

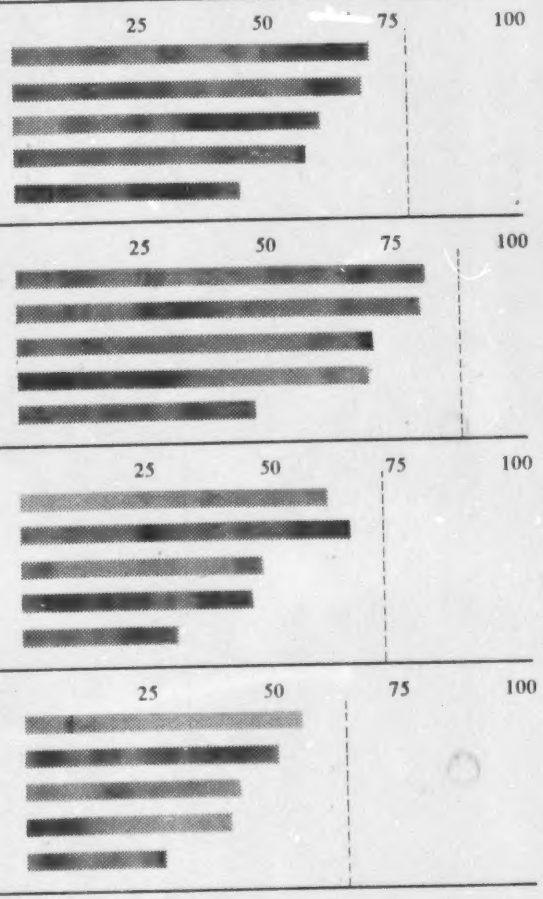
For all four domains, performance of the 7 percent of students diagnosed as needing but not receiving corrective/remedial work was slightly higher than that of the 16 percent of students diagnosed as needing and receiving corrective/remedial assistance. Interpretive panel members felt this difference indicated available resources were being used effectively, since students with the greatest need were receiving assistance. At the same time they felt strongly that greater effort must be made to help the 7 percent of students (approximately 2,400) needing but not receiving corrective/remedial assistance. Performance of these students (i.e., those needing but not receiving assistance) was far below the state average for every domain, and also far below the performance of students not diagnosed as needing corrective/remedial work.

[3]It should be noted that a very small percentage of students (less than one-half percent) who had not been diagnosed as needing corrective/remedial work were nevertheless receiving it. Such students were usually given remedial assistance at the discretion of the teacher even though no formal diagnosis of the student's needs had been made.

TABLE 8-b

PERFORMANCE FOR DOMAINS BY SEVERITY OF THE DIAGNOSED READING PROBLEM

DOMAIN AREA	DIAGNOSIS BY TEACHER/ SPECIALIST: SEVERITY	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	Teacher: Mild	237	71.5*
	Specialist: Mild	192	69.9*
	Teacher: Severe	313	60.6*
	Specialist: Severe	358	57.7*
	Specialist: Extremely Severe	175	44.8*
Vocabulary Skills	OREGON	8,111	88.8
	Teacher: Mild	237	82.5*
	Specialist: Mild	192	81.5*
	Teacher: Severe	313	71.9*
	Specialist: Severe	358	69.6*
	Specialist: Extremely Severe	175	47.3*
Comprehension Skills	OREGON	8,111	73.3
	Teacher: Mild	237	62.0*
	Specialist: Mild	192	65.4*
	Teacher: Severe	313	48.1*
	Specialist: Severe	358	46.0*
	Specialist: Extremely Severe	175	31.7*
Application Skills	OREGON	8,111	64.5
	Teacher: Mild	237	55.2*
	Specialist: Mild	192	51.9*
	Teacher: Severe	313	43.2*
	Specialist: Severe	358	40.3*
	Specialist: Extremely Severe	175	28.0*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages according to severity of the diagnosed reading problem can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and average scores for the domain according to severity of the diagnosed reading problem occurs not only in the sample, but in the state fourth grade population as a whole.

Severity of the Diagnosed Reading Problem. The next characteristic to be considered, for those students diagnosed as needing corrective/remedial assistance, was the severity of the reading problem.

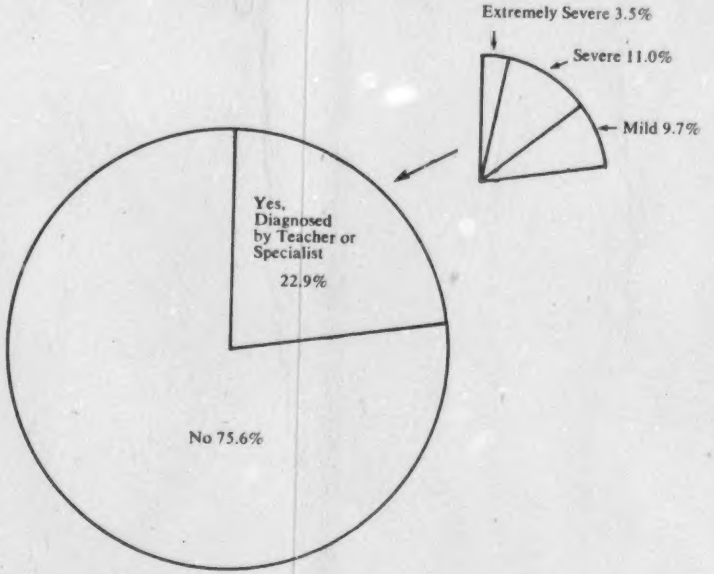


Fig. 5-c: Estimated percent of students diagnosed as having mild, severe, and extremely severe reading difficulties.[4]

Figure 5-c shows that of the 23 percent of Oregon fourth graders diagnosed by teachers or specialists as needing corrective/remedial assistance, about 10 percent were diagnosed as having mild reading problems; 11 percent as having severe reading problems; about 3 percent as having extremely severe reading problems. These classifications were defined for teachers as follows. Students reading up to one year below grade level were diagnosed as having mild reading problems. Those reading one to two years below grade level were diagnosed as having severe reading problems. And those reading more than two years below grade level were diagnosed as having extremely severe reading problems.

Table 8-b indicates only the performance of Oregon fourth graders who were participating in corrective/remedial programs and who had been diagnosed by teachers or specialists as having mild, severe, or extremely severe reading problems.[5] Only an extremely small percentage of fourth graders were diagnosed *by teachers* as having extremely severe reading problems; this category is not included in Table 8-b. If a teacher suspects that a student has a severe or extremely severe reading problem, the teacher will refer that student to a specialist for diagnosis—unless, of course, no specialist is available. In that event, the teacher must make the diagnosis.

In all four domains, students diagnosed—by teachers or specialists—as having mild reading problems scored higher than students diagnosed as having severe or extremely severe reading problems. Again, reviewers interpreted this as a direct indication of the accuracy of the diagnoses being performed. This interpretation is reinforced by the fact that students diagnosed by specialists as having extremely severe reading problems were consistently the lowest scoring in all four domains.

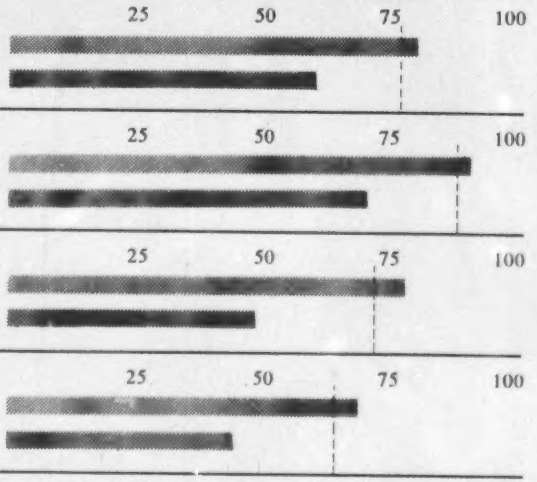
[4] The discrepancy between the percentage of students diagnosed as having reading difficulties (i.e., 22.9 percent) and the total percentage of students in different categories of severity (i.e., 24.2 percent) results from some teachers having responded to the question about severity even in cases where a student had not been *formally* diagnosed.

[5] Performance of students who were diagnosed as having reading problems but who were not participating in corrective/remedial programs followed the same pattern as for those participating in corrective/remedial programs.

TABLE 9

PERFORMANCE FOR DOMAINS BY PARTICIPATION IN A CORRECTIVE/REMEDIAL PROGRAM

DOMAIN AREA	PARTICIPATION IN CORRECTIVE/REMEDIAL PROGRAM	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	No	6,627	81.4*
	Yes	1,437	60.2*
Vocabulary Skills	OREGON	8,111	88.8
	No	6,627	92.4*
	Yes	1,437	70.8*
Comprehension Skills	OREGON	8,111	73.3
	No	6,627	78.1*
	Yes	1,437	49.8*
Application Skills	OREGON	8,111	64.5
	No	6,627	68.8*
	Yes	1,437	43.4*



Note: For each domain, the broken vertical line in colunm four indicates the state average. Differences between the state average and group averages by participation in a corrective/remedial program can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and average scores for the domain according to participation in a corrective/remedial program occurs not only in the sample, but in the state fourth grade population as a whole.

Participation in a Corrective/ Remedial Reading Program. Figure 5-d shows that in April 1975, about 16 percent of Oregon's fourth graders were participating in a corrective/ remedial program of reading instruction.

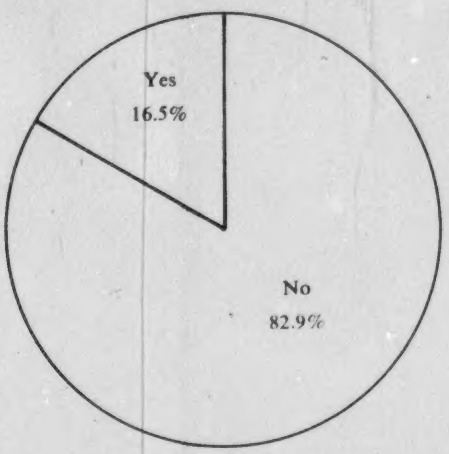


Fig. 5-d.: Estimated percent of students participating in corrective/ remedial programs.

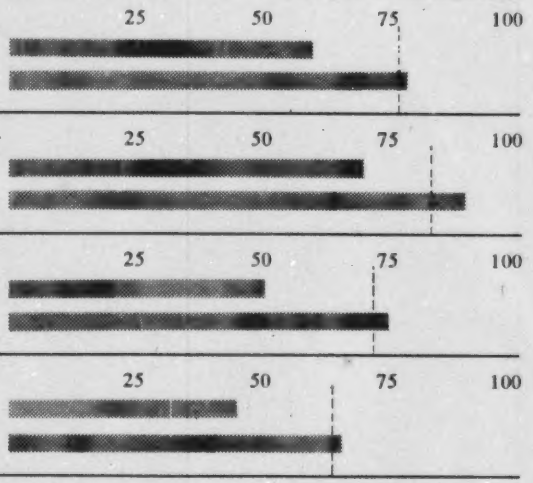
At the time of the 1975 assessment, about 2,400 students who had been diagnosed as having reading problems were unable to participate in a corrective/ remedial program because of limited resources. Interpretive panel members were eager that future reviewers of assessment results pay particular heed to this discrepancy and continue to recommend that the Oregon fourth graders needing but not receiving corrective/ remedial assistance be referred to programs offering that assistance.

As Table 9 shows, the performance of students who were in corrective/ remedial programs was far below the state average for all domains, indicating that such students had been properly placed and were in need of the extra assistance they were receiving.

TABLE 10

PERFORMANCE FOR DOMAINS BY PARTICIPATION IN A COMPENSATORY EDUCATION PROGRAM

DOMAIN AREA	FEDERAL ASSISTANCE	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	Title I Participant	957	60.9*
	Non-Title I Participant	7,038	79.5*
Vocabulary Skills	OREGON	8,111	88.8
	Title I Participant	957	71.8*
	Non-Title I Participant	7,038	90.4*
Comprehension Skills	OREGON	8,111	73.3
	Title I Participant	957	51.7*
	Non-Title I Participant	7,038	75.5*
Application Skills	OREGON	8,111	64.5
	Title I Participant	957	45.1*
	Non-Title I Participant	7,038	66.5*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages by participation in a compensatory education program can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average and average scores for the domain according to participation in a compensatory education program occurs not only in the sample, but in the state fourth grade population as a whole.

Participation in a Compensatory Education Program. Title I ESEA programs are designed to expand and improve educational opportunities for educationally disadvantaged children. Projects have been funded in such areas as reading, language arts, pre-school instruction and cultural enrichment.

In reviewing the assessment results, the interpretive panel found that performance of Oregon fourth grade students participating in a Title I ESEA compensatory education program (Regular or Migrant) was substantially lower than that of students not participating in such a program (see Table 10).

Figure 6 shows that about 8 percent of Oregon's fourth graders were participating in Title I projects at the time of the 1975 assessment.

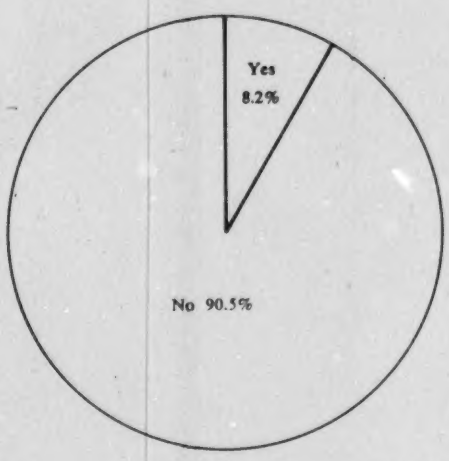


Fig. 6.: Estimated percent of students who were participants in Title I ESEA projects.

As a closer look at their characteristics indicates, the 8 percent of Oregon students participating in Title I ESEA programs clearly needed educational assistance. Most students (80 percent) participating in Title I ESEA programs had been diagnosed by a teacher or reading specialist as needing corrective or remedial reading help. As a result, most Title I students (72 percent) were participating in corrective or remedial reading programs. Students in Title I programs had demonstrated a need for educational assistance by their previous lack of success in school: nearly 24 percent of the fourth grade students in Title I had failed or been held back a grade as compared to about 8 percent of the non-Title I students.

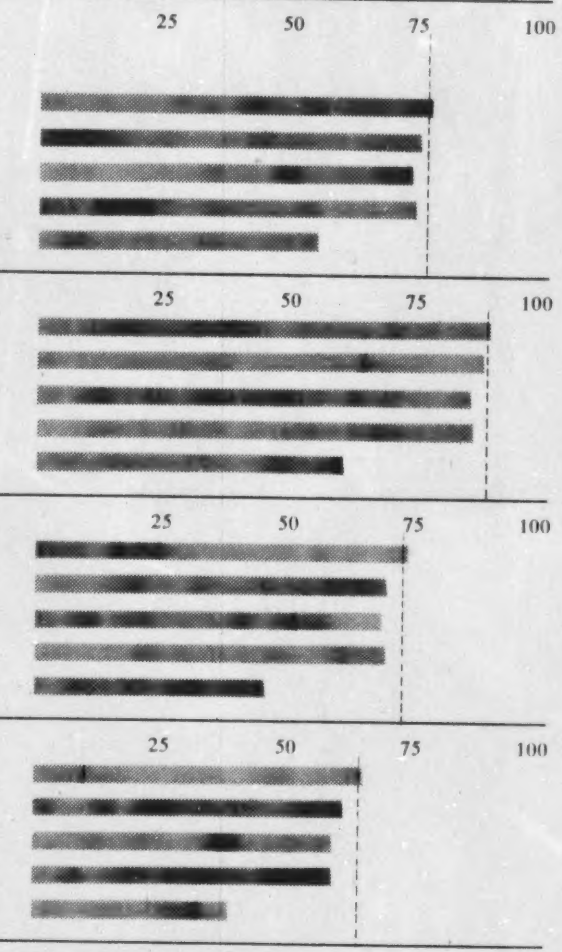
Assessment results also showed that students in Title I programs were more likely to be from minority groups than students not in Title I programs. About 20 percent of the Title I students were American Indian, Black, or Spanish-surnamed, while only 4 percent of the non-Title I students were from these minority groups. Also, the percentage of students in Title I programs varied greatly among regions. About 12 percent of all fourth graders in the Eastern Region were in Title I programs, compared with 9 percent in the Western Region and 6 percent in the Metropolitan Region.

Students in Title I programs need the support those programs can provide. Offering Title I programs, corrective or remedial programs, and other special assistance programs to all students who need them should be a high priority for the Department and the legislature.

TABLE 11

PERFORMANCE FOR DOMAINS BY SECOND LANGUAGE

DOMAIN AREA	LANGUAGE OTHER THAN ENGLISH			SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
		OREGON		8,111	77.8
	Student Response	Teacher Response	Problem ?		
Word Attack Skills	No	No	—	7,030	78.6*
	No	Yes	—	337	75.7
	Yes	No	—	289	74.0*
	Yes	Yes	No	218	75.0
	Yes	Yes	Yes	111	55.3*
		OREGON		8,111	88.8
Vocabulary Skills	No	No	—	7,030	89.4*
	No	Yes	—	337	88.1
	Yes	No	—	289	85.9*
	Yes	Yes	No	218	86.1
	Yes	Yes	Yes	111	60.4*
		OREGON		8,111	73.3
Comprehension Skills	No	No	—	7,030	74.4*
	No	Yes	—	337	69.7
	Yes	No	—	289	67.9*
	Yes	Yes	No	218	68.5*
	Yes	Yes	Yes	111	45.2*
		OREGON		8,111	64.5
Application Skills	No	No	—	7,030	65.4*
	No	Yes	—	337	62.6
	Yes	No	—	289	59.4*
	Yes	Yes	No	218	59.6*
	Yes	Yes	Yes	111	38.1*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages by the second language characteristic can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain according to the second language characteristic occurs not only in the sample, but in the state fourth grade population as a whole.

Speaking a Second Language. Test administrators were asked whether, to their knowledge, each student spoke a language other than English, and if so, whether that factor caused a learning problem in reading. Students were also asked whether they spoke a language other than English. In most cases, teachers and students were in agreement regarding whether the student spoke a second language. Where there was disagreement, test administrators' responses were used to classify students.

Figure 7 shows that according to test administrators, less than 8 percent of the students tested spoke a second language.[6] The results in Table 11 show that certain students who spoke a second language were experiencing difficulties in reading. Although a cause and effect relationship cannot be unquestionably inferred, reviewers of the results tended to feel that in many cases, speaking a second language was affecting reading performance. It was suggested that this could be caused by a student's not receiving practice in speaking or reading English in the home.

The results suggest it may be appropriate to consider different ways to assist such students in learning to read. For example, students whose first language is not English might be taught to read first in their native language, and subsequently in English. Bilingual instruction, in which the student receives instruction in English and in his or her native language as well, offers the advantage of increasing the student's reading skills and general mastery of English without diminishing the importance of the student's native culture.

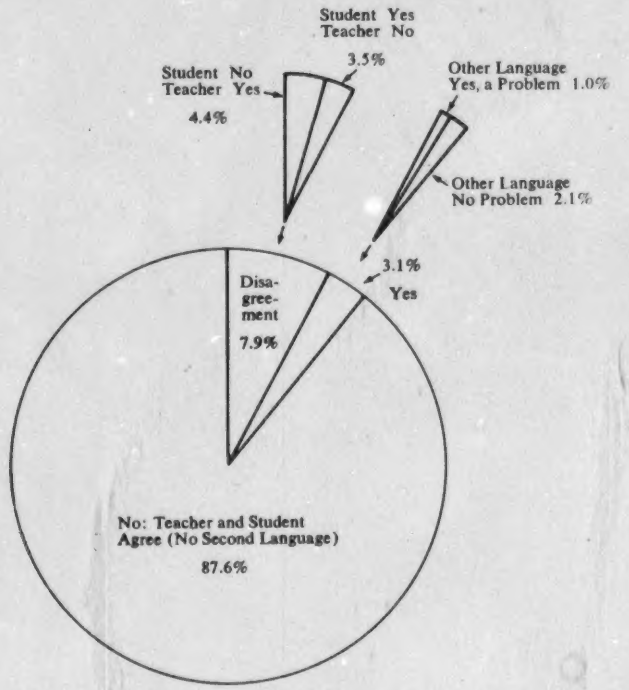


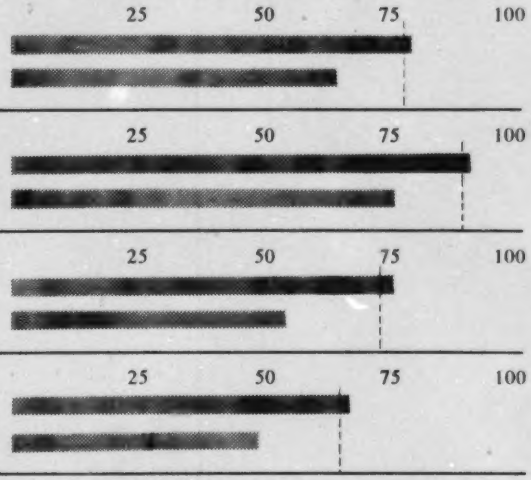
Fig. 7.: Estimated percent of fourth graders who, according to teachers' and students' own reports, spoke a second language; and estimated percent of fourth graders for whom speaking a second language caused a reading problem.

[6] The reader will note that for 7.9 percent of Oregon's fourth graders there was disagreement between the student and the teacher regarding whether the student spoke a second language.

TABLE 12

PERFORMANCE FOR DOMAINS BY REPEATING A GRADE

DOMAIN AREA	HELD BACK OR FAILED	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	No	7,046	79.7*
	Yes	786	64.4*
Vocabulary Skills	OREGON	8,111	88.8
	No	7,046	90.5*
	Yes	786	75.7*
Comprehension Skills	OREGON	8,111	73.3
	No	7,046	75.7*
	Yes	786	54.6*
Application Skills	OREGON	8,111	64.5
	No	7,046	66.6*
	Yes	786	48.4*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages according to the student characteristic of repeating a grade can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain according to the student characteristic of repeating a grade occurs not only in the sample, but in the state fourth grade population as a whole.

Repeating a Grade. Test administrators were asked to indicate whether each student had ever failed a grade or been held back in school. Figure 8 shows that approximately 9 percent of Oregon's fourth graders had been held back at some time during their schooling.

Such students performed lower on the test than students who had not failed a grade or been held back (Table 12).

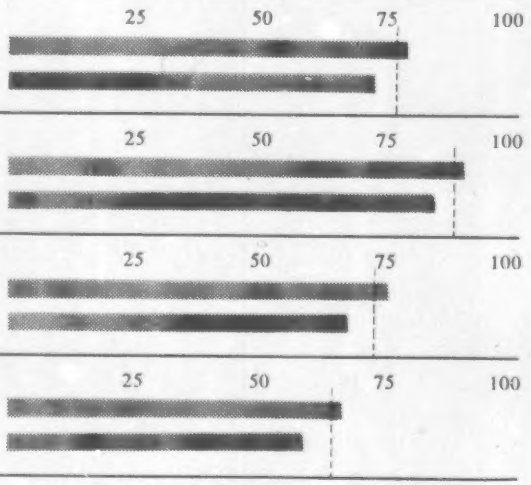
Fig. 8.: Estimated percent of fourth graders held back at some time during schooling.

The percentage of students who had been held back or had failed a grade differed according to race and district size. Approximately 17 percent of all Spanish-surnamed fourth graders, 11 percent of the American Indians/ Native Americans, 9 percent of the whites, and 7 percent of the Negroes/ Blacks had been held back or had failed a grade. District size had an interesting relationship to the student retention rate—the smaller the size of the district, the greater the retention rate. The results show that about 16 percent of all fourth graders had been retained in the 1-99 district size category; 12 percent in districts of 100-2,999; 10 percent in districts of 3,000 to 7,499; and 5 percent in districts of 7,500 or more students. Reviewers found this result of interest and cited it as a possible area for further research.

TABLE 13

PERFORMANCE FOR DOMAINS BY RECEIVING READING ASSISTANCE FROM PARAPROFESSIONALS AND AIDES

DOMAIN AREA	ASSISTANCE IN READING INSTRUCTION	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	No	5,270	79.8*
	Yes	2,767	73.6*
Vocabulary Skills	OREGON	8,111	88.8
	No	5,270	90.6*
	Yes	2,767	84.7*
Comprehension Skills	OREGON	8,111	73.3
	No	5,270	76.0*
	Yes	2,767	67.7*
Application Skills	OREGON	8,111	64.5
	No	5,270	67.0*
	Yes	2,767	59.2*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages according to receipt of reading assistance can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain according to receipt of reading assistance occurs not only in the sample, but in the state fourth grade population as a whole.

Receiving Reading Assistance from Paraprofessionals or Aides. Test administrators were asked to indicate whether each student was in a class where paraprofessionals, volunteers or student aides were available to assist in reading instruction. As indicated in Figure 9, about 32 percent of the state's fourth graders were in classes where such assistance was available.

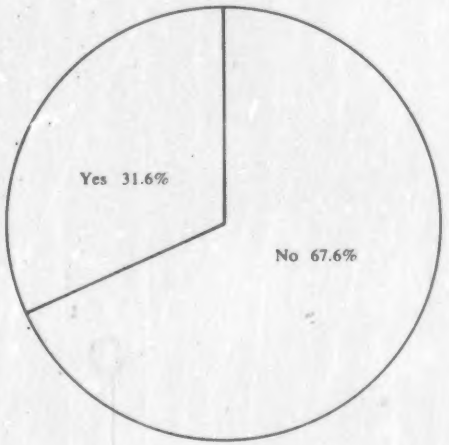


Fig. 9.: Estimated percent of fourth graders in classes where paraprofessionals, volunteers or student aides were available to assist in reading instruction.

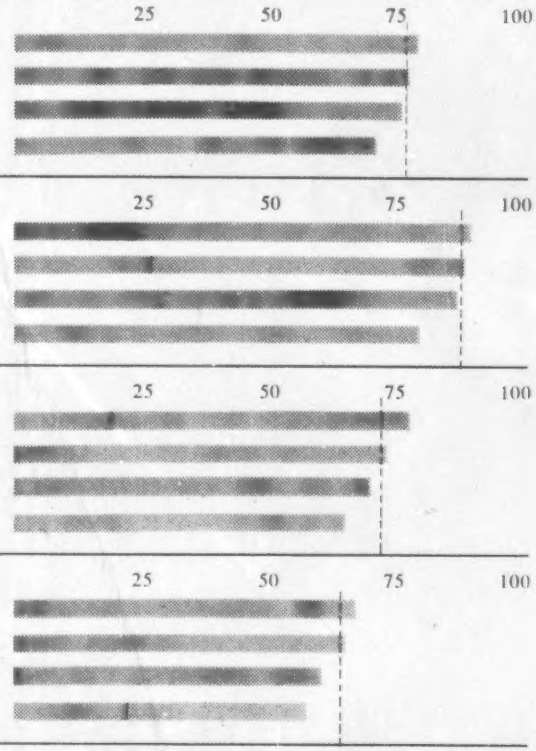
Table 13 shows that students in classes where paraprofessionals or aides assisted scored lower on the reading assessment test than the state average. Reviewers interpreted these results to mean that those students most in need of assistance (as indicated by their low scores) were receiving it.

This conclusion is supported by a review of which students were obtaining special assistance. For example, 61 percent of students participating in Title I ESEA programs were also obtaining special assistance in reading from paraprofessionals or aides; 89 percent of the bilingual students who had reading problems were receiving such assistance, as were 53 percent of the students participating in corrective or remedial programs.

TABLE 14

PERFORMANCE FOR DOMAINS BY AMOUNT OF READING INSTRUCTION PER DAY

DOMAIN AREA	READING INSTRUCTION PER DAY	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	½ hour or less	364	80.2*
	Between ½ and 1 hour	4,258	78.6
	Between 1 and 2 hours	3,236	76.8
	More than 2 hours	156	72.5
Vocabulary Skills	OREGON	8,111	88.8
	½ hour or less	364	90.8*
	Between ½ and 1 hour	4,258	89.7*
	Between 1 and 2 hours	3,236	87.6*
	More than 2 hours	156	80.7
Comprehension Skills	OREGON	8,111	73.3
	½ hour or less	364	77.8*
	Between ½ and 1 hour	4,258	74.4*
	Between 1 and 2 hours	3,236	71.8*
	More than 2 hours	156	66.4
Application Skills	OREGON	8,111	64.5
	½ hour or less	364	67.6*
	Between ½ and 1 hour	4,258	65.7*
	Between 1 and 2 hours	3,236	62.8*
	More than 2 hours	156	57.7



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages by amount of reading instruction per day can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and average scores for the domain by amount of reading instruction per day occurs not only in the sample, but in the state fourth grade population as a whole.

Amount of Direct Reading Instruction Received Per Day. Another relationship investigated in the assessment was that between test performance and the average amount of direct reading instruction (in hours) a student received each day. Four categories were established for this analysis. The percentage of students in each category is shown in Figure 10. The vast majority of students received one half to one hour or one to two hours of reading instruction. Only about 4 percent of all Oregon fourth grade students received one half hour of instruction or less, and fewer than 2 percent received more than two hours.

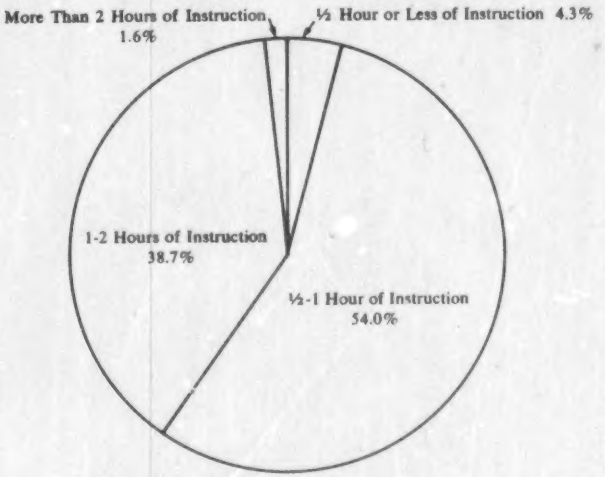


Fig. 10.: Estimated percent of fourth graders in categories indicating amount of reading instruction received per day.

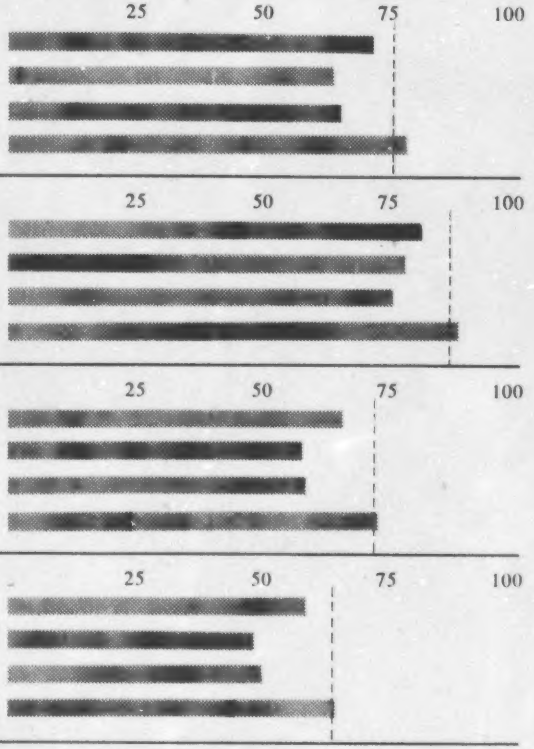
The relationship between the amount of reading instruction and test performance is shown in Table 14. A consistent trend was found throughout the four domains; students who received the least amount of direct instruction scored highest.

Panel members' interpretation of results was similar to that for the characteristic of paraprofessional or student assistance in reading instruction—i.e., students most in need of instruction were receiving it. Interpretive panel members cautioned that reviewers of results should not infer that instruction was ineffective because students receiving two or more hours of instruction were not performing well. It was pointed out that many other factors impinge on reading performance. For example, the results showed that students who received the most reading instruction per day tended to be those who had been diagnosed as needing corrective or remedial help, had extreme learning problems, were bilingual and having reading problems, or were participants in Title I ESEA programs.

TABLE 15

PERFORMANCE FOR DOMAINS BY STUDENT'S RACE/ETHNIC GROUP

DOMAIN AREA	RACE/ETHNIC GROUP†	SAMPLE SIZE‡	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY
Word Attack Skills	OREGON	8,111	77.8
	American Indian/Native American	192	73.8*
	Negro/Black	243	64.3*
	Spanish Surnamed	252	65.8*
	Caucasian/White	7,310	78.4*
Vocabulary Skills	OREGON	8,111	88.8
	American Indian/Native American	192	83.0*
	Negro/Black	243	79.7*
	Spanish Surnamed	252	77.1*
	Caucasian/White	7,310	89.3*
Comprehension Skills	OREGON	8,111	73.3
	American Indian/Native American	192	67.0*
	Negro/Black	243	58.3*
	Spanish Surnamed	252	59.4*
	Caucasian/White	7,310	74.0*
Application Skills	OREGON	8,111	64.5
	American Indian/Native American	192	59.3*
	Negro/Black	243	49.9*
	Spanish Surnamed	252	50.7*
	Caucasian/White	7,310	65.1*



Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages by student's race/ethnic group can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain by student's race/ethnic group occurs not only in the sample, but in the state fourth grade population as a whole.

†As given by teacher.

‡A very small sample of Orientals has not been included in this tabulation.

Student's Race. Test administrators (in most cases, fourth grade teachers) were asked to identify whether each student participating in the assessment was American Indian/ Native American, Negro/ Black, Oriental, Spanish-surnamed, or Caucasian/ White. As Figure 11 indicates, the population of Oregon fourth graders was predominantly white.

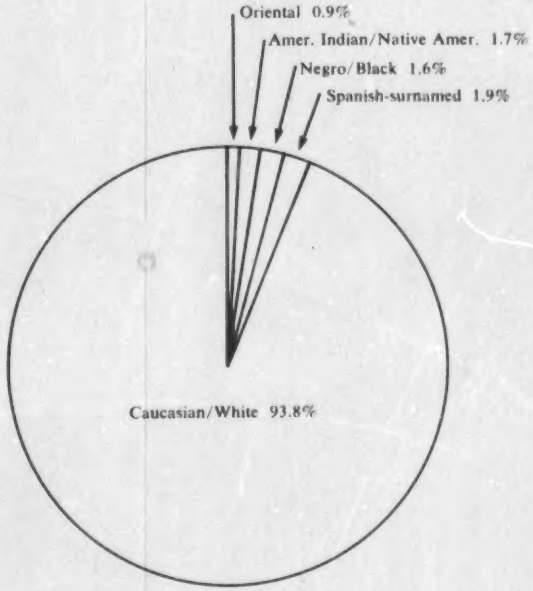


Fig. 11.: Estimated percent of fourth graders in each race category.[7]

Table 15 shows that for all four performance domains, whites scored above the state average, and American Indians/ Native Americans, Spanish-surnamed, and Negroes/ Blacks scored below the state average. In all cases, American Indians/ Native Americans scored above Spanish-surnamed and Negro/ Black students.

Other assessment results showed that non-white students were more likely than whites to be in ESEA Title I programs and to be receiving corrective or remedial assistance in reading. For example, 36 percent of the Negro/ Blacks and 44 percent of Spanish-surnamed students participated in ESEA Title I programs compared with 7 percent of the whites; 35 percent of the Negroes/ Blacks and 27 percent of the Spanish-surnamed students participated in corrective or remedial reading programs compared with 16 percent of the white students. The results suggest that providing minority students such assistance continues to be appropriate. Upon examining the performance of minority students, interpretive panel members recommended more careful review of existing programs and continued emphasis on providing assistance to those with a demonstrated need.

[7] Orientals were not included in the analyses because there were so few (68) in the sample.

TABLE 16

PERFORMANCE FOR DOMAINS BY STUDENT'S SEX

47

DOMAIN AREA	SEX	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY	25	50	75	100
Word Attack Skills	OREGON	8,111	77.8				
	Female	3,977	80.1*				
	Male	4,134	75.6*				
Vocabulary Skills	OREGON	8,111	88.8				
	Female	3,977	90.9*				
	Male	4,134	86.7*				
Comprehension Skills	OREGON	8,111	73.3				
	Female	3,977	76.7*				
	Male	4,134	70.1*				
Application Skills	OREGON	8,111	64.5				
	Female	3,977	67.4*				
	Male	4,134	61.7*				

Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages by student's sex can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain by student's sex occurs not only in the sample, but in the state fourth grade population as a whole.

Student's Sex. Figure 12 indicates that Oregon fourth graders were fairly evenly divided between boys and girls (50.7 percent male, 49.3 percent female).

The results presented in Table 16 also show that boys consistently scored lower than girls on all four domains. Although interpretive panel members believed that this trend would not continue through the intermediate grades, they were concerned about the lower performance by boys, and felt that steps should be taken to offer special assistance to male students.

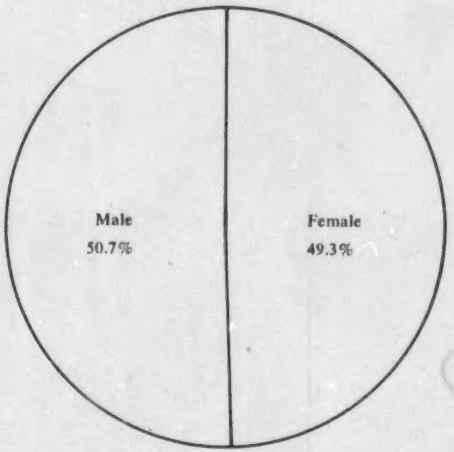


Fig. 12.: Estimated percent of male and female fourth graders.

Reading performance was found to be unrelated to the sex of the teacher; i.e., students of male and female fourth grade reading teachers performed equally well.

TABLE 17

PERFORMANCE FOR DOMAINS BY STUDENT'S AGE COMBINED WITH REPEATING A GRADE

DOMAIN AREA	AGE COMBINED WITH REPEATING	SAMPLE SIZE	AVERAGE PERCENTAGE OF ITEMS ANSWERED CORRECTLY	25	50	75	100
Word Attack Skills	OREGON	8,111	77.8				
	Less than 10, No	3,637	80.6*				
	10 or older, No	3,403	78.7*				
	10 or older, Yes	768	64.5*				
Vocabulary Skills	OREGON	8,111	88.8				
	Less than 10, No	3,637	91.0*				
	10 or older, No	3,403	89.9*				
	10 or older, Yes	768	75.9*				
Comprehension Skills	OREGON	8,111	73.3				
	Less than 10, No	3,637	76.4*				
	10 or older, No	3,403	75.0*				
	10 or older, Yes	768	54.7*				
Application Skills	OREGON	8,111	64.5				
	Less than 10, No	3,637	67.2*				
	10 or older, No	3,403	66.0*				
	10 or older, Yes	768	48.7*				

Note: For each domain, the broken vertical line in column four indicates the state average. Differences between the state average and group averages for the combined characteristic of student's age and repeating a grade can be noted by observing how much the bars deviate from the vertical line.

*Indicates a high probability that a difference between the state average score and group average scores for the domain for the combined characteristic of student's age and repeating a grade occurs not only in the sample, but in the state fourth grade population as a whole.

Student's Age Combined With Whether the Student Had Repeated a Grade. Age was combined with the held back or failed characteristic to form a new characteristic. The percentages of students in each resulting group are shown in Figure 13.

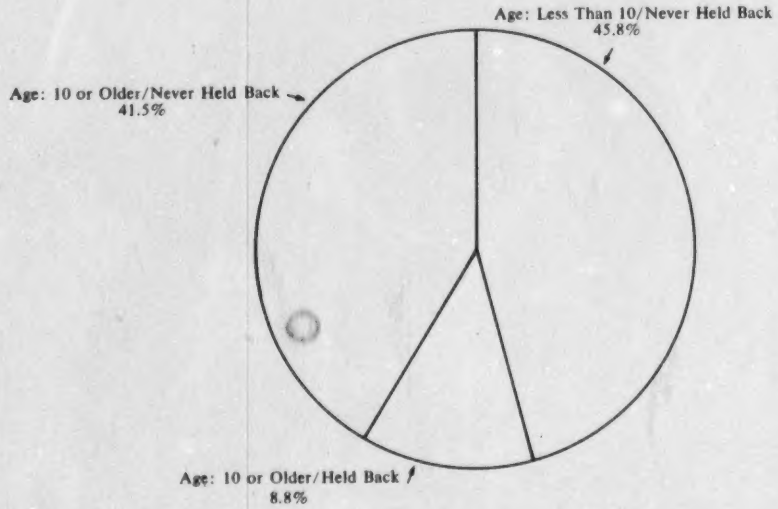


Fig. 13.: Estimated percent of fourth graders in various age groups who had been held back or had failed a grade.

The reader should note that because only one-half of 1 percent of Oregon fourth graders were students less than 10 years old who had been held back, this group was not included in the analysis.

Table 17 shows that for all four performance domains, students less than 10 years old performed the best. Of students who were 10 and older, those who had never been held back were above the state average, and those who had been held back sometime in their schooling performed considerably below the state average. However, reviewers felt that further research would be necessary to fully define the relationship between performance and a student's being held back in school. In summary, students who had been held back during their early years in school did not read as well as their younger classmates.

SUMMARY

Reviewers generally regarded student performance on the 1975 reading assessment as satisfactory, though not excellent. Out of the total 25 objectives, students demonstrated satisfactory performance on 11, above desired performance (indicating areas of strength) on seven, and below acceptable performance (indicating areas of weakness) on seven objectives. In particular,

- Performance was lower for comprehension and application skills than for word attack and vocabulary skills. Reading specialists on the 1975 interpretive panel expected these results, however, since primary grade instruction stresses phonics and word recognition far more than comprehension and application skills.
- Student performance was quite consistent throughout the four domains. That is, groups who scored higher in one domain tended to score higher in all four domains.
- Although large, metropolitan districts tended to score lower throughout the four domains, reviewers felt that differences among districts were less important than the greater differences observed in relation to student characteristics.
- The approximately 6 percent of Oregon fourth grade students who were non-white tended to score lower on the assessment than the white students. These students were also more likely to be in Title I ESEA programs, and to be receiving corrective or remedial assistance in reading.
- The greatest student performance variation from the state averages occurred for the following student characteristics: (1) the extent of the student's need for remedial reading services and receipt of such services (Tables 8-a and 8-b); (2) whether the student was participating in a Title I ESEA Compensatory Education Program (Table 10); (3) whether the student had ever failed a grade or been held back (Table 12); and (4) the student's race (Table 15).
- The performance of some bilingual students was well below the state average.
- The student characteristics of sex and age showed a slight but consistent trend across the domains with boys and older children who had failed a grade or been held back scoring lower.

SOME COMPARISONS BETWEEN 1974 AND 1975 . . .

- The percent of students diagnosed as needing corrective or remedial assistance increased from 17.2 percent to 22.9 percent.
- The percent of students not receiving needed remedial assistance increased from 4.4 percent to 7.1 percent.
- The percent of students participating in Title I ESEA programs increased from 6.7 percent to 8.2 percent.

- On both the pilot test and 1975 assessment, boys scored lower than girls on most objectives.
- In both the 1974 pilot test and the 1975 assessment, students receiving corrective or remedial assistance and students participating in Title I ESEA programs were the lowest scoring. Important relationships exist among these characteristics. Participants in Title I ESEA prorgams are selected because they are educationally disadvantaged. Such students are then provided additional assistance in reading in terms of both time and individual attention. The results indicate that students' needs for additional assistance and attention continue to exist. Interpretive panel members emphasized that assessment results pointed toward a need to continue and reinforce remedial and corrective reading programs.

Recommendations

- To the Oregon Legislature
- To the State Board of Education and the Oregon Department of Education
- To the State Textbook Commission and Local Textbook Committees
- To Teachers and District Personnel
- To Parents and Citizens

RECOMMENDATIONS

The primary purpose of assessment is to produce data useful in making decisions which lead to educational improvement. Statewide assessment programs in other states frequently conclude their assessment activities with dissemination of data, depending upon others to make appropriate recommendations and take the proper action. Seldom has this approach proven successful. Oregon has chosen not to follow this model.

From its inception, the Oregon assessment program has been committed to ensuring both proper dissemination and utilization of assessment results. An assessment program can only be valuable to the extent that it provides educators and decision makers the information they need to improve learning opportunities for students. But steps toward improvement must be based on careful consideration of results and on specific recommendations.

The recommendations listed here represent the response of the interpretive panel to the overall results of the 1975 reading assessment. Some recommendations are based directly on panel members' examination of results. In such cases, the reader is directed to the appropriate table or figure for a more complete picture of relevant data. Other recommendations are based primarily on interpretive panel members' professional or personal experience and knowledge, and are based more on a general impression of students' reading performance than on specific data.

> It is expected that others may have different or additional recommendations. Readers are therefore encouraged to examine the assessment results for themselves and to compare their conclusions and recommendations with those offered in this report.

- RECOMMENDATIONS TO THE OREGON LEGISLATURE

1. Approximately 7 percent of Oregon's fourth graders have been diagnosed as needing corrective/remedial help—yet they are not receiving it (see Figure 5-b). **Funds should be granted to provide needed services to these students.**

2. **Seed money should be provided for innovative programs to increase parents' involvement in the education of their children.**

3. **Resources should be made available for the academic diagnosis of all students transferring into one system from another.**

- RECOMMENDATIONS TO THE STATE BOARD OF EDUCATION AND THE OREGON DEPARTMENT OF EDUCATION

4. Performance of some groups—e.g., minority students, Title I students, students diagnosed as needing corrective/remedial work—was low on this assessment (see Tables 8-a, 10 and 15). In addition, student performance statewide was lower on comprehension and application skills than on word attack and vocabulary skills (see Tables 1-4). **The Oregon Department of Education exemplary program administrators and advisory committees should consider such results in setting priorities for funding proposed reading programs.**

5. **The Department and the Board should use assessment results to assist colleges and universities in designing teacher preparation programs, and to assist the Teacher Standards and Practices Commission in setting professional standards for teacher certification.**

6. **The Department and the Board should use assessment results in providing technical assistance (e.g., on interpretation of test results) and in designing in-service training (e.g., the Right to Read Program) for educators and local districts.**

- RECOMMENDATIONS TO THE STATE TEXTBOOK COMMISSION AND LOCAL TEXTBOOK COMMITTEES

7. **The State Textbook Commission should continue to consider results of the statewide assessment in its evaluation of textbooks.**

- RECOMMENDATIONS TO TEACHERS AND DISTRICT PERSONNEL

8. Student performance was high in the areas of word attack and vocabulary skills (see Tables 1 and 2), but lower in the areas of comprehension and application (see Tables 3 and 4). **Teachers and district personnel should carefully review textbooks and other reading materials to ensure emphasis on domains and objectives on which performance was lower. In addition, beginning even in the first grade, students should be given practice in making inferences, answering questions about reading passages, summarizing stories, placing events in chronological order, and other skills which emphasize reading for understanding. Practice in reading skills should be integrated with other learning activities—such as math or social studies—to give students an opportunity to develop reading skills within the context of other subject areas.**

9. Some minority students and bilingual students performed considerably below the state average (see Tables 11 and 15). **Teachers and specialists should examine more closely the effectiveness of programs for minority students. In particular, emphasis must be placed on helping minority students whose native language is not English develop proficiency in English without diminishing the importance of their native culture. Whenever possible in working with bilingual students, English should be taught as part of a bilingual program.**

10. Performance of male, non-white, and Title I ESEA students and those diagnosed as needing corrective/remedial assistance tended to be low (see Tables 8-a, 10, 15, and 16). **Teachers and specialists should make a special effort to use materials and exercises which are interesting and relevant to such students.**

11. **Using fourth grade materials to teach fourth graders to read is not always**

most effective. When students are experiencing reading difficulties, it may be helpful to use materials normally designated for earlier grade levels. Such materials often prove more effective—at least initially—in assisting students whose reading performance is below average for their grade level.

12. **Although more emphasis must be placed on helping students develop reading skills prior to the fourth grade, teachers and specialists should provide selective follow-up on an individual basis through the intermediate grades and beyond. This will ensure that all students have optimal opportunity to develop and enhance reading skills.**

13. **Schools and districts must keep programs flexible by providing a variety of resources and methods for teaching reading. No single method can be effective in all cases. Teachers and specialists must be prepared to use their ingenuity in developing or utilizing programs and materials designed to meet specific student needs.**

14. **Educators must provide continuity in terms of purposes and procedures throughout the educational process. This continuity should be reflected in broad educational goals, district goals, and specific classroom goals. Students should have an opportunity to develop skills through a wide spectrum of learning tasks, from simple to complex—all related to attainment of important goals.**

15. **It is recognized that the data provided through this assessment classify children according to broad groups; however, educators (and parents, too) must go beyond such a classification system. Students should be viewed as individuals—not merely as members of a larger group. Only then can teachers and others be fully effective in meeting students' needs.**

16. **Since many students spend a great deal of time watching television, educators might look for ways to use TV as an educational aid. Television is largely visual, and students learn visually. Programs like "Sesame Street" or other aids, like the filmstrip "You See What You Hear," can be useful in helping children learn to discriminate between sounds.**

17. **Children need some exposure to cultural differences. If the ultimate purpose of education is development of the child, educators must see that the reading materials used reflect cultural diversity, and must offer children a chance to interact with racially and culturally different children in an educational setting.**

• RECOMMENDATIONS TO PARENTS AND CITIZENS

18. Fourth grade boys, on the average, did not read as well as girls (see Table 16). And performance for all fourth grade students tended to be lowest in the areas of comprehension and application skills (see Tables 3 and 4). **Parents should provide their children—particularly boys—a variety of reading activities emphasizing development of comprehension and application skills. In addition, parents should encourage a positive attitude toward reading by demonstrating through their words and actions that they consider reading a valuable and important activity.**

19. **By communicating with teachers and seeking ways to help their children improve reading skills, parents must become increasingly involved in the educational process. Parents are teachers, too; by recognizing this and working together, parents and teachers can strengthen a child's total educational experience.**

Appendices

Appendix A: List of Advisory Groups for the Oregon Statewide Assessment Program

- Statewide Assessment Advisory Committee
- Statewide Assessment IED Coordinators
- State Right to Read Committee

Appendix B.: Members of 1975 Interpretive Panel

Appendix C: State Board of Education Goals for Elementary and Secondary Education

Appendix D: State Performance on Reading Objectives Across the State by Type of School District (and Interpretation Guide)

APPENDIX A

Advisory Groups for the Oregon Statewide Assessment Program

STATEWIDE ASSESSMENT ADVISORY COMMITTEE

William Kendrick (Chairman)
Superintendent
Salem School District #24J
Salem, Oregon

Jack D. Ripper (Vice-Chairman)
State Senator, District #24
North Bend, Oregon

Sharon Benson
Regional Vice-President on
Executive Committee of PTA
Culver, Oregon

Gerry Crockwell
Insurance Executive
Portland, Oregon

Georgie Fox, Teacher
View Acres Elementary School
Milwaukie, Oregon

Carl Jorgensen, Principal
Sam Case Elementary School
Newport, Oregon

Diane Link, Teacher
Whitaker Middle School
Portland, Oregon

Clifford Murray, Chairman
Grants Pass School Board
Grants Pass, Oregon

Ben Padrow, Professor
Portland State University
Portland, Oregon

Karin Putnam
OCE Student
Salem, Oregon

Mary Rieke
State Representative, District #9
Portland, Oregon

Miguel Salinas, Director
Bilingual Education and Principal
Nellie Muir Elementary School
Woodburn, Oregon

William Stewart
Dean of Community Education
Mount Hood Community College Center
Portland, Oregon

Clyde Swisher, Teacher
Nyssa Public Schools
Nyssa, Oregon

STATEWIDE ASSESSMENT IED COORDINATORS 1974-1975

Robert O. Eddy, Superintendent
Baker County IED

Robert Holman, Coordinator
Guidance & Testing
Linn-Benton IED

Chester Hausken, Coordinator
Clackamas IED

George E. Long, Director
General Education
Clatsop IED

Ray K. Godsey, Superintendent
Columbia IED

Robert Salisbury, Director
Pupil Personnel
Coos Bay School District #9
Coos Bay IED

Elvin T. Williams
Superintendent-Clerk
Courthouse
Crook IED

Donald C. Brent, Director
Child Services & Special Education
Curry IED

Wyatt I. Rosenbaum, Superintendent
Bend School District #1
Deschutes IED

Don Schutt, Director
Teacher Inservice & Curriculum
Douglas IED

Gordon V. Ruff, Superintendent
Gilliam & Wheeler IED

Robert A. Batty, Superintendent
Grant IED

Mary Howden, Consultant
Special Education
Harney IED

Frank T. Lariza, Superintendent
Hood River School District #1
Hood River IED

Ralph Humphrey, Director
Instructional Programs
Jackson IED

Clark Lund, Administrative Assistant
Jefferson IED

Robert Hambly
Curriculum Director
Josephine IED

Charles Steber, Asst. Superintendent
Klamath County School District
Klamath IED

Stanley Wonderly
Curriculum Coordinator
Lake IED

Jim Swanson, Specialist
Measurement and Research
Lane IED

Rex Krabbe, Project Specialist
Lincoln County Unit
Lincoln IED

Robert L. Harrod, Supervisor
Malheur IED

Hazel Sydow, Consultant
Testing & Curriculum
Marion IED

Vi Lanham
Heppner High School
Morrow IED

Peter Wolmut, Director
Research & Evaluation
Multnomah IED

Elton Fishback, Superintendent
Polk IED

Lynn O. Hampton, Superintendent
Sherman IED

Lee Roy Hanson, Superintendent
Tillamook IED

Michael Wsiaki
Umatilla County IED

Bob French, Testing Coordinator
Union IED

A. H. Haberly, Superintendent
Wallowa IED

Chuck Jackson, Curriculum Coordinator
Wasco IED

George Anderson
Washington IED

Ed Katz
Yamhill IED

RIGHT TO READ SUBCOMMITTEE from the OREGON STATE BOARD OF EDUCATION RIGHT-TO-READ ADVISORY COMMITTEE

Neil McDowell
Oregon Reading Association

Reita Hribernick
Oregon Community College Association

Roba Rathkey
Oregon School Boards Association

Daniel R. Bohlmann
Graduate Student, Northwestern School of Law

APPENDIX B

OREGON STATEWIDE ASSESSMENT OF READING INTERPRETIVE PANEL

September 11-12, 1975

Elsie Allen, Teacher
Monroe Elementary School
Monroe, Oregon

Robert Allstot, Principal
Arthur D. Hay Elementary School
Lakeview, Oregon

Frank Ashmore, Reading Specialist
Dallas School District
Monmouth, Oregon

Wendell Austin, Principal
Maple Elementary School
Springfield, Oregon

Pat Baggett, Teacher
Sauvies Island Elementary School
Portland, Oregon

Leah Conner, Elementary Counselor
Madras Elementary School
Madras, Oregon

Pat Gammond, Teacher
East Orient Elementary School
Sandy, Oregon

Marion Garrettson, Teacher
Yachats Elementary School
Yachats, Oregon

Ruby Godwin, Teacher
Wasco Grade School
Wasco, Oregon

Charles Goforth, Reading Specialist
Salem School District
Salem, Oregon

Roland Griffith, Principal
Jewett Elementary School
Central Point, Oregon

Marjorie Gunderson, Reading Specialist
Klamath County School District
Klamath Falls, Oregon

Ralph Hodges, Reading Specialist
Portland Public Schools
Portland, Oregon

Mabel Jensen, Teacher
Turner Elementary School
Turner, Oregon

Etta Leeper, Teacher
Culver Elementary School
Culver, Oregon

Bea Maxwell, Teacher
Arthur D. Hay Elementary School
Lakeview, Oregon

Neil McDowell, Reading Specialist
Oregon Reading Association
Ashland, Oregon

Jean Nelson, Teacher
Richardson Elementary School
Central Point, Oregon

Gabriel Orlando, Reading Specialist
Multnomah IED
Portland, Oregon

Jean Pope, Curriculum Coordinator
Central Point Elementary School
Central Point, Oregon

Camille Pruitt, Teacher
Carlton Elementary School
McMinnville, Oregon

Miguel Salinas, Principal
Nellie Muir Elementary School
Woodburn, Oregon

Charles Smith, Superintendent
Seaside School District
Seaside, Oregon

Clyde Swisher, Teacher
Nyssa High School
Nyssa, Oregon

Alice Tillman, Teacher
Glenfair Elementary School
Portland, Oregon

Stanley Vandehey, Assistant Superintendent
Reynolds School District
Troutdale, Oregon

Christy Wheeler, Teacher
Harper Elementary School
Harper, Oregon

Ardeth Woods, Teacher
Moro Elementary School
Moro, Oregon

STAFF

Greg Druian, Staff Specialist
Northwest Regional Educational Laboratory
Portland, Oregon

Ann Helmick, Research Assistant
Northwest Regional Educational Laboratory
Portland, Oregon

Mike Hiscox, Staff Specialist
Northwest Regional Educational Laboratory
Portland, Oregon

Dean H. Nafziger, Director
Assessment Program
Northwest Regional Educational Laboratory
Portland, Oregon

Vicki Spandel, Writer/Editor
Northwest Regional Educational Laboratory
Portland, Oregon

James C. Impara, Director
Statewide Assessment
Oregon Department of Education
Salem, Oregon

John L. Major, Research Associate
Oregon Department of Education
Salem, Oregon

September 15-16, 1975

Mary Abraham, Parent
Albany, Oregon

Wendell Austin, Principal
Maple Elementary School
Springfield, Oregon

Art Bensell, Parent
Siletz, Oregon

Pat Gammond, Teacher
East Orient Elementary School
Sandy, Oregon

Jeanne Gaulke, Parent
Hood River, Oregon

Charles Goforth, Reading Specialist
Salem School District
Salem, Oregon

Brenda Green, Parent
Portland, Oregon

Daisy Hayes, Parent
Portland, Oregon

Lynford Hershey, Parent
Culver, Oregon

Ralph Hodges, Reading Specialist
Portland Public Schools
Portland, Oregon

Ray Lauderdale, Parent
Salem, Oregon

Neil McDowell, Reading Specialist
Oregon Reading Association
Ashland, Oregon

Blair Preuss, Parent
Portland, Oregon

Robert Sanders, Parent
Harper, Oregon

Alice Tillman, Teacher
Glenfair Elementary School
Portland, Oregon

Jeanne Torres, Parent
Woodburn, Oregon

Stanley Vandehey
Assistant Superintendent
Reynolds School District
Troutdale, Oregon

Geneva Winkle, Parent
Portland, Oregon

STAFF

Henry C. Dizney
Senior Research Associate
Oregon Department of Education
Salem, Oregon

James C. Impara, Director
Statewide Assessment
Oregon Department of Education

John L. Major, Research Associate
Oregon Department of Education
Salem, Oregon

Greg Druian, Staff Specialist
Northwest Regional Educational Laboratory
Portland, Oregon

Ann Helmick, Research Assistant
Northwest Regional Educational Laboratory
Portland, Oregon

Dean H. Nafziger, Director
Assessment Program
Northwest Regional Educational Laboratory
Portland, Oregon

Vicki Spandel, Writer/Editor
Northwest Regional Educational Laboratory
Portland, Oregon

September 18, 1975

Wendell Austin, Principal
Maple Elementary School
Springfield, Oregon

Jeanne Gaulke, Parent
Hood River, Oregon

Gabriel Orlando, Reading Specialist
Multnomah IED
Portland, Oregon

Blair Preuss, Parent
Portland, Oregon

Alice Tillman, Teacher
Glenfair Elementary School
Portland, Oregon

STAFF

Henry C. Dizney
Senior Research Associate
Oregon Department of Education
Salem, Oregon

James C. Impara, Director
Statewide Assessment
Oregon Department of Education
Salem, Oregon

John L. Major, Research Associate
Oregon Department of Education
Salem, Oregon

Ann Helmick, Research Assistant
Northwest Regional Educational Laboratory
Portland, Oregon

Dean H. Nafziger, Director
Assessment Program
Northwest Regional Educational Laboratory
Portland, Oregon

Vicki Spandel, Writer/Editor
Northwest Regional Educational Laboratory
Portland, Oregon

APPENDIX C

OREGON BOARD OF EDUCATION GOALS FOR ELEMENTARY AND SECONDARY EDUCATION

PREAMBLE

The Oregon Board of Education, in response to the changing needs of Oregon learners, sets forth six goals for the public schools.

Conceived and endorsed by Oregon citizens, these statewide goals confirm that every student in the elementary and secondary schools shall have the opportunity to learn to function effectively in six life roles: LEARNER, INDIVIDUAL, PRODUCER, CITIZEN, CONSUMER, and FAMILY MEMBER. Each goal states the knowledge, skills, and attitudes needed to function in these life roles.

The statewide goals shall be implemented through the program and course goals of each local school district. These local goals are set by the schools together with their communities to fulfill a shared responsibility for the education of every student. Because most of the knowledge and skills needed to function effectively in the role of LEARNER are acquired in school, the school has primary responsibility for helping students achieve this goal.

Each school and its community establishes priorities among the goals to meet local needs, and allocates school and community resources accordingly. This assures each student the opportunity to achieve the requirements for graduation from high school, and as much additional schooling as school and community resources can provide.

STATEWIDE GOALS FOR SCHOOLING

Each indivdual will have the opportunity to develop to the best of his or her ability the knowledge, skills, and attitudes necessary to function in each life role.

1. In preparation for the role of LEARNER:
   Each individual will develop the basic skills of reading, writing, computation, spelling, speaking, listening, and problem-solving; and will develop a positive attitude toward learning as a lifelong endeavor.

2. In preparation for the role of INDIVIDUAL:
   Each learner will develop the skills to achieve fulfillment as a self-directed person; acquire the knowledge to achieve and maintain physical and mental health; and develop the capacity to cope with change through an understanding of the arts, humanities, scientific processes, and the principles involved in making moral and ethical choices.

3. In preparation for the role of PRODUCER:
   Each individual will learn of the variety of occupations; will learn to appreciate the dignity and value of work and the mutual responsibilities of employers and employees; and will learn to identify personal talents and interests, make appropriate career choices, and develop career skills.

4. In preparation for the role of CITIZEN:
   Each individual will learn to act in a responsible manner; will learn of the rights and responsibilities of citizens of the community, state, nation, and world; and will learn to understand, respect, and interact with other cultures, generations and races.

5. In preparation for the role of CONSUMER:
   Each individual will acquire knowledge and develop skills in the management of personal resources to provide wisely for personal and family needs and meet obligations to self, family, and society.

6. In preparation for the role of FAMILY MEMBER:
   Each individual will learn of the rights and responsibilities of family members, and acquire the skills and knowledge to strengthen and enjoy family life.

APPENDIX D

Interpretation Guide for Schools Participating in the 1975 Oregon Statewide Assessment Program

For those schools that participated in the April 1975 statewide assessment, Table 1 in Appendix D offers a comparison between their mean scores on each objective and skill area (domain), and the performances of children throughout the state or in different types of school districts. The mean performance on an objective or a skill area for students in a given school can be compared to statewide performance or to the performance of students in similar districts. The following procedures are suggested:

1. Look at the school report that your school received in May 1975. That report gave you the number of questions, the mean rights, and standard deviations for each objective and for each of the four skill areas.
2. Find the mean rights for any objective or skill area on your school report.
3. On Table 1 in Appendix D, locate the means on that objective or skill area for the state, for districts from your region, for districts from your per pupil expenditure category, and for those from your district size category.
4. Compare your school mean (Step 2) for the objective or skill area with the appropriate means for that objective or skill area taken from Table 1 in Appendix D (Step 3).
5. If your school mean is more than two standard errors (taken from Table 1 in Appendix D, with the appropriate means) above or below the means identified in Step 3, you can be confident that your school is different from the average school in the state or in each district category. Such a difference is large enough to warrant interpretation by your professional staff, and you may want to take appropriate action.

For example, if the mean right for your school was *4.75* on *Objective 1*, and your school is located in the Eastern Region, is in the $700-899 per pupil expenditure category, and has a district size of 7,500+, you would go to Table 1 in Appendix D and extract the following means and standard errors for comparison:

a. *Comparison with the State Performance:* Looking at Table 1 in Appendix D, the state mean for *Objective 1* was *4.74* and the standard error was *0.01*. Our hypothetical school was not more than two standard errors above *(4.76)* or below *(4.72)* the state mean, so we would interpret this performance to be not much different from the state performance.

b. *Comparison with the Performance of Schools in the Eastern Region:* Looking at Table 1 in Appendix D, the Eastern Region mean for *Objective 1* was *4.79*, and the standard error was *0.01*. Our hypothetical school was more than two standard errors below *(4.77)* the Eastern Region mean, so we would interpret this performance to be different from that of the average school in the Eastern Region.

c. *Comparison with the Performance of Schools in the $700-899 Per Pupil Expenditure Category:* Looking at Table 1 in Appendix D, the $700-899 per pupil expenditure category mean for *Objective 1* was *4.76*, and the standard error was *0.01*. Our hypothetical school was not more than two standard errors above *(4.78)* or below *(4.74)* the mean performance for schools in the $700-899 per pupil expenditure category. This finding indicates that there was little difference between the school's performance and the performance of schools in its per pupil expenditure category.

d. *Comparison with the Performance of Schools in the 7,500+ District Size Category:* Looking at Table 1 in Appendix D, the 7,500+ district size category mean for *Objective 1* was *4.70* and the standard error was *0.02*. Our hypothetical school was more than two standard errors above *(4.74)* the 7,500+ district size category mean, so we would interpret this performance to be different from that of schools of similar size.

APPENDIX D

TABLE 1

Performance on Reading Objectives Across the State by Type of School District*

Domain/Objective	No. of Items**	State	Performance By: Region			Per Pupil Expenditure			District Size		
			Eastern	Western	Metro-politan	$699 or less	$700-$899	$900 or more	1-99	100-2,999	3,000-7,499	7,500+
DOMAIN I—Word Attack Skills	40	31.13 (0.16)	31.98 (0.22)	31.47 (0.24)	30.30 (0.29)	31.52 (0.32)	31.38 (0.20)	30.16 (0.40)	32.61 (0.37)	31.17 (0.22)	32.12 (0.25)	30.39 (0.33)
Objective 1—Word Identification	5	4.74 (0.01)	4.79 (0.01)	4.75 (0.02)	4.69 (0.02)	4.73 (0.02)	4.76 (0.01)	4.69 (0.03)	4.81 (0.03)	4.72 (0.02)	4.80 (0.01)	4.70 (0.02)
Objective 2—Vowel Sounds	4	2.32 (0.02)	2.49 (0.04)	2.39 (0.04)	2.16 (0.04)	2.41 (0.05)	2.34 (0.03)	2.19 (0.05)	2.57 (0.10)	2.32 (0.03)	2.45 (0.04)	2.23 (0.04)
Objective 3—Silent Letters	6	5.25 (0.02)	5.33 (0.03)	5.30 (0.04)	5.14 (0.04)	5.30 (0.04)	5.29 (0.03)	5.09 (0.05)	5.25 (0.08)	5.26 (0.03)	5.40 (0.04)	5.13 (0.05)
Objective 4—*y* Sounds	5	3.81 (0.03)	3.97 (0.04)	3.87 (0.04)	3.68 (0.05)	3.96 (0.05)	3.83 (0.03)	3.62 (0.07)	4.01 (0.10)	3.84 (0.04)	3.99 (0.04)	3.67 (0.05)
Objective 5—Hard/Soft *c* and *g*	4	3.07 (0.02)	3.15 (0.03)	3.09 (0.03)	3.01 (0.04)	3.11 (0.04)	3.09 (0.03)	2.99 (0.04)	3.20 (0.07)	3.06 (0.03)	3.18 (0.03)	3.01 (0.04)
Objective 6—Vowels Before *r*	3	2.15 (0.02)	2.23 (0.04)	2.20 (0.03)	2.04 (0.04)	2.18 (0.04)	2.19 (0.03)	2.02 (0.05)	2.30 (0.07)	2.18 (0.03)	2.27 (0.04)	2.02 (0.04)
Objective 7—Double Vowels	2	1.44 (0.01)	1.50 (0.02)	1.46 (0.02)	1.39 (0.02)	1.45 (0.02)	1.46 (0.02)	1.39 (0.03)	1.60 (0.05)	1.44 (0.02)	1.49 (0.02)	1.41 (0.02)
Objective 8—Contractions	5	3.86 (0.02)	3.97 (0.04)	3.90 (0.03)	3.77 (0.04)	3.93 (0.04)	3.87 (0.03)	3.77 (0.05)	4.11 (0.07)	3.90 (0.03)	3.91 (0.04)	3.78 (0.04)
Objective 9—Number of Syllables	6	4.49 (0.04)	4.55 (0.07)	4.51 (0.05)	4.43 (0.08)	4.45 (0.08)	4.55 (0.05)	4.41 (0.10)	4.75 (0.10)	4.43 (0.05)	4.64 (0.07)	4.44 (0.08)

*The first number for each objective is the mean or average number of items correct. The second number (in parentheses) is the standard error of the mean, an indicator of variability of performance on the objective.

**The number of items column total does not equal the total number of items on the test since items 14 and 16 address both objectives 21 and 22.

TABLE 1
(Continued)

Performance on Reading Objectives Across the State by Type of School District*

Domain/Objective	No. of Items**	Performance By: State	Region: Eastern	Region: Western	Region: Metro-politan	Per Pupil Expenditure: $699 or less	Per Pupil Expenditure: $700-$899	Per Pupil Expenditure: $900 or more	District Size: 1-99	District Size: 100-2,999	District Size: 3,000-7,499	District Size: 7,500+
DOMAIN II—Vocabulary Skills	8	7.10 (0.03)	7.21 (0.04)	7.10 (0.05)	7.05 (0.05)	7.10 (0.05)	7.13 (0.03)	7.04 (0.08)	7.23 (0.14)	7.04 (0.05)	7.28 (0.03)	7.05 (0.06)
Objective 10—Omitted Word	4	3.51 (0.02)	3.57 (0.02)	3.51 (0.02)	3.49 (0.03)	3.52 (0.03)	3.51 (0.02)	3.51 (0.04)	3.58 (0.09)	3.48 (0.02)	3.60 (0.02)	3.49 (0.03)
Objective 11—Multiple Meaning Words	4	3.59 (0.02)	3.64 (0.02)	3.59 (0.02)	3.56 (0.03)	3.59 (0.03)	3.62 (0.02)	3.53 (0.04)	3.65 (0.05)	3.56 (0.03)	3.68 (0.02)	3.56 (0.03)
DOMAIN III—Comprehension Skills	21	15.40 (0.09)	15.87 (0.12)	15.46 (0.14)	15.12 (0.16)	15.59 (0.19)	15.43 (0.11)	15.14 (0.23)	15.99 (0.41)	15.23 (0.15)	16.03 (0.16)	15.18 (0.17)
Objective 12—Locate Information in a Passage	3	1.77 (0.01)	1.81 (0.02)	1.81 (0.02)	1.70 (0.02)	1.81 (0.03)	1.77 (0.02)	1.72 (0.03)	1.82 (0.08)	1.76 (0.02)	1.86 (0.03)	1.72 (0.03)
Objective 13—Answering Questions About a Passage	5	4.20 (0.02)	4.32 (0.03)	4.22 (0.04)	4.12 (0.04)	4.26 (0.04)	4.22 (0.03)	4.10 (0.06)	4.30 (0.11)	4.19 (0.04)	4.36 (0.04)	4.11 (0.04)
Objective 14—Chronological Order	3	1.95 (0.02)	2.05 (0.03)	1.95 (0.03)	1.92 (0.04)	1.95 (0.04)	1.95 (0.03)	1.95 (0.04)	2.13 (0.09)	1.89 (0.03)	2.04 (0.03)	1.96 (0.04)
Objective 15—Predict Story Ending	3	2.00 (0.02)	2.09 (0.02)	2.00 (0.02)	1.95 (0.03)	2.03 (0.03)	1.99 (0.02)	1.97 (0.03)	2.13 (0.10)	1.97 (0.03)	2.10 (0.02)	1.96 (0.03)
Objective 16—Inferred Conclusions	5	3.96 (0.02)	4.05 (0.03)	3.96 (0.03)	3.93 (0.04)	3.98 (0.04)	3.98 (0.03)	3.91 (0.05)	4.05 (0.10)	3.91 (0.04)	4.09 (0.04)	3.94 (0.04)
Objective 17—Select Plot Summary	2	1.52 (0.01)	1.54 (0.02)	1.53 (0.02)	1.49 (0.02)	1.55 (0.02)	1.51 (0.01)	1.49 (0.03)	1.55 (0.05)	1.50 (0.02)	1.58 (0.02)	1.49 (0.02)

*The first number for each objective is the mean or average number of items correct. The second number (in parentheses) is the standard error of the mean, an indicator of variability of performance on the objective.

**The number of items column total does not equal the total number of items on the test since items 14 and 16 address both objectives 21 and 22.

TABLE 1
(Continued)

Performance on Reading Objectives Across the State by Type of School District*

Domain/Objective	No. of Items**	Performance By: State	Region: Eastern	Region: Western	Region: Metro-politan	Per Pupil Expenditure: $699 or less	Per Pupil Expenditure: $700-$899	Per Pupil Expenditure: $900 or more	District Size: 1-99	District Size: 100-2,999	District Size: 3,000-7,499	District Size: 7,500+
DOMAIN IV—Application Skills	25	16.12 (0.12)	16.72 (0.16)	16.17 (0.18)	15.81 (0.20)	16.29 (0.25)	16.19 (0.14)	15.79 (0.28)	17.30 (0.39)	16.02 (0.19)	16.85 (0.19)	15.73 (0.22)
Objective 18—Alphabetize	4	2.36 (0.02)	2.50 (0.04)	2.38 (0.04)	2.29 (0.04)	2.45 (0.05)	2.37 (0.03)	2.25 (0.05)	2.56 (0.06)	2.39 (0.04)	2.50 (0.04)	2.23 (0.04)
Objective 19—Use Dictionary	6	3.77 (0.04)	3.97 (0.06)	3.76 (0.06)	3.68 (0.07)	3.89 (0.07)	3.75 (0.05)	3.64 (0.09)	4.22 (0.10)	3.77 (0.06)	3.94 (0.07)	3.64 (0.07)
Objective 20—Use Table of Contents	6	4.93 (0.03)	5.04 (0.03)	4.97 (0.04)	4.82 (0.05)	4.95 (0.05)	4.97 (0.03)	4.82 (0.07)	5.08 (0.10)	4.89 (0.04)	5.12 (0.04)	4.85 (0.05)
Objective 21—Follow Written Directions	3	1.73 (0.01)	1.77 (0.03)	1.73 (0.02)	1.70 (0.02)	1.70 (0.03)	1.74 (0.02)	1.72 (0.03)	1.74 (0.09)	1.71 (0.02)	1.78 (0.02)	1.71 (0.03)
Objective 22—Follow Cardinal Directions	2	1.39 (0.01)	1.42 (0.02)	1.39 (0.02)	1.36 (0.02)	1.37 (0.02)	1.40 (0.02)	1.38 (0.02)	1.40 (0.07)	1.38 (0.02)	1.42 (0.02)	1.37 (0.02)
Objective 23—Addition Word Problem	2	1.42 (0.01)	1.47 (0.02)	1.42 (0.02)	1.40 (0.02)	1.41 (0.02)	1.43 (0.02)	1.42 (0.03)	1.54 (0.06)	1.40 (0.02)	1.48 (0.02)	1.40 (0.03)
Objective 24—Subtraction Word Problem	2	0.95 (0.01)	0.98 (0.02)	0.95 (0.02)	0.94 (0.02)	0.93 (0.03)	0.96 (0.02)	0.95 (0.03)	1.06 (0.07)	0.91 (0.02)	1.02 (0.03)	0.95 (0.02)
Objective 25—Select Word Problem Operation	2	0.97 (0.01)	0.99 (0.02)	0.95 (0.02)	0.99 (0.03)	0.96 (0.03)	0.97 (0.02)	0.98 (0.03)	1.10 (0.05)	0.95 (0.02)	1.03 (0.03)	0.96 (0.03)

*The first number for each objective is the mean or average number of items correct. The second number (in parentheses) is the standard error of the mean, an indicator of variability of performance on the objective.

**The number of items column total does not equal the total number of items on the test since items 14 and 16 address both objectives 21 and 22.

REPORTS AND PRODUCTS

The following reports and products contain the results of the 1975 Oregon Statewide Reading Assessment:

The *Technical Report* is a comprehensive record of the 1975 assessment prepared primarily for the assessment staff and educational researchers. *Volume I* presents a detailed background and history of the assessment. *Volume II* presents a comprehensive overview of assessment procedures, covering such phases of the 1975 assessment as sampling, collecting data, and analyzing results. *Volume III* presents a complete description of the procedures involved in coordinating the 1975 interpretive panel meetings and a full discussion of the interpretive comments and recommendations offered by that panel.

The *General Report*, a summary of the *Technical Report*, is intended for such audiences as legislators, Department of Education program directors and staff, local district personnel, the general public, and media personnel who would further disseminate the information.

The *Executive Summary*, like the *General Report*, is for a non-technical audience. The most significant findings and recommendations are highlighted in this document.

The brochure is a one-sheet foldout providing an overview of the 1974-75 Oregon assessment program.

Copies of the *General Report* and *Executive Summary* are available. Write or call:

Documents Clerk
Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310
Phone: 378-3589

Questions about the Oregon Statewide Assessment Program are welcomed and should be sent to:

Director
Statewide Assessment Program
Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

Copies of the reading test used in the 1975 assessment are available from the Department for use by any Oregon school district. There is no charge. Requests for copies of the test should be sent to the director of the Oregon Statewide Assessment Program.